SEWER PROJECTS

ENCINA WATER POLLUTION CONTROL FACILITY PROJECTS

FUNDING MATRIX FOR ENCINA WATER POLLUTION CONTROL FACILITY PROJECTS

PROJ NO.	FUND NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	PRIOR APPROP.	FUTURE YEAR BUDGET AMOUNTS						
						YEAR 1 2014-2015	YEAR 2 2015-2016	YEAR 3 2016-2017	YEAR 4 2017-2018	YEAR 5 2018-2019	YEAR 6-10 2020-2024	YEAR 11-15 2025- 2029
5801	58011	CAPITAL ACQUISTION REPLACEMENT/REHABILITATION	SEWER REPL	62,808,120	11,793,147	2,601,958	4,494,401	2,684,612	3,906,289	3,237,023	16,185,113	17,905,577
		PHASE IV EXPANSION - DEBT SERVICE	SEWER CONN	925,191	0	925,191						
5803	58031	PHASE V EXPANSION	SEWER CONN	10,910,358	10,910,358							

(1) = Project is in service and/or substantially complete and a Capital Project Description page is not included in the Technical Appendix.

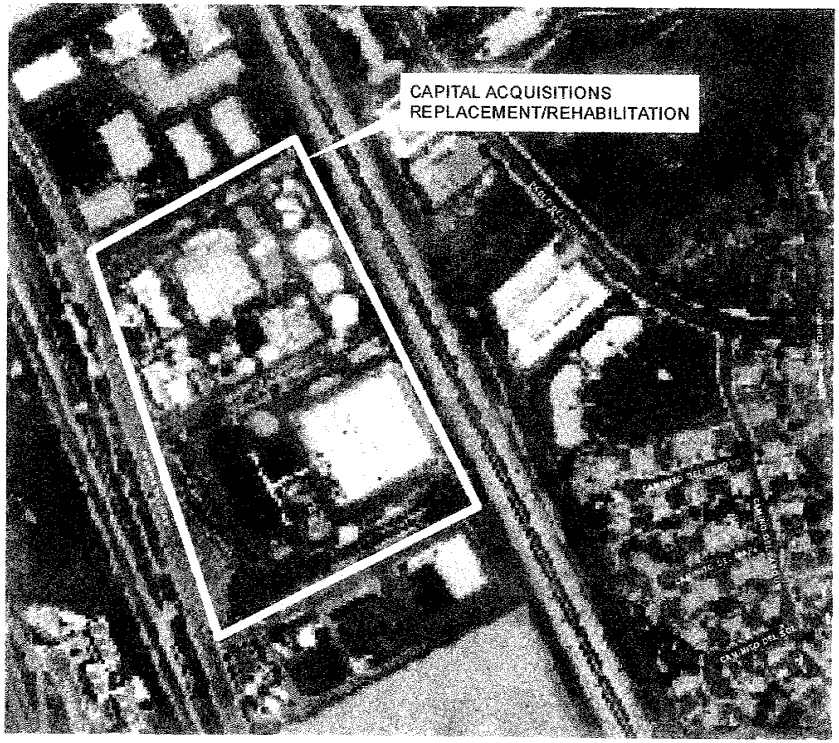
CAPITAL PROJECT DESCRIPTION

ENCINA WATER POLLUTION CONTROL FACILITY - CAPITAL ACQUISITIONS REPLACEMENT/REHABILITATION

PROJECT NAME

5801
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Encina Water Pollution Control Facility at 6200 Avenida Encinas.

PROJECT DESCRIPTION:

The funds for this project are used by the Encina Water Pollution Control Facility to develop and construct its buildout Capital Improvement Program. The cost is Carlsbad's share to cover staff, overhead, and hiring consultants to design and develop bid specifications for future capital acquisitions and the replacement / rehabilitation / construction of facilities at the sewer treatment plant.

PROJECT NEED:

To ensure the efficient and effective operation of Encina Water Pollution Control Facility.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design/Construction	$62,808,120	Sewer Replacement
Total Cost =	**$62,808,120**	

CAPITAL PROJECT DESCRIPTION

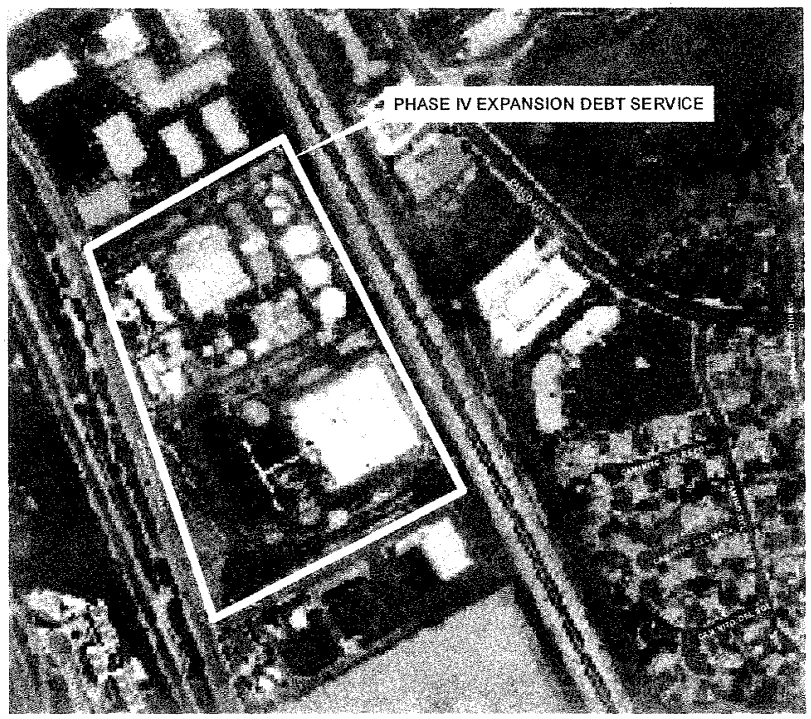
ENCINA WATER POLLUTION CONTROL FACILITY - PHASE IV EXPANSION DEBT SERVICE

PROJECT NAME

NONE

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

South of Palomar Airport Road on the east side of Avenida Encinas.

PROJECT DESCRIPTION:

Expansion of the Encina Water Pollution Control Facility to increase treatment capacity from 22.5 million gallons per day to 36.0 million gallons per day of raw sewage. Cost includes bond financing and interest costs.

PROJECT NEED:

Required to meet Growth Management Standards and identified in the Master Plan of Sewage.

FINANCING:

Purpose	Estimated Cost	Funding Source
Debt Service	$925,191	Sewer Connection
Total Cost =	**$925,191**	

CAPITAL PROJECT DESCRIPTION

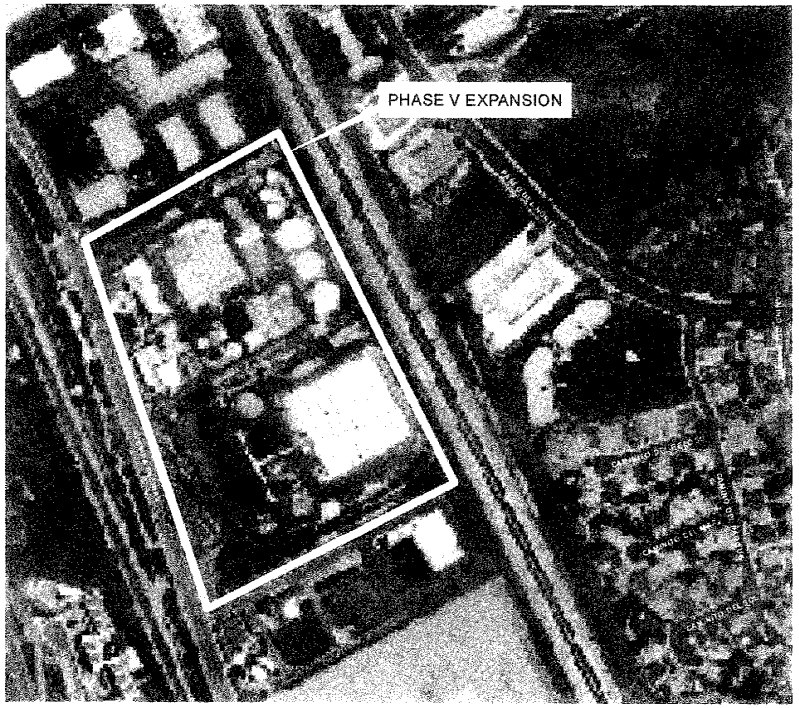
ENCINA WATER POLLUTION CONTROL FACILITY - PHASE V EXPANSION

PROJECT NAME

5803

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Encina Water Pollution Control Facility at 6200 Avenida Encinas.

PROJECT DESCRIPTION:

Expand the Encina Water Pollution Control Facility to buildout for the treatment of 45-60 MGD of wastewater. Cost represents City's pro-rated share of the Phase V expansion.

PROJECT NEED:

To provide for ultimate wastewater treatment capacity of the Carlsbad Sewer District.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design/Construction	$10,910,358	Sewer Connection
Total Cost =	**$10,910,358**	

SEWER COLLECTION SYSTEM PROJECTS

FUNDING MATRIX FOR SEWER COLLECTION SYSTEM PROJECTS

PROJ NO.	FUND NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	PRIOR APPROP.	FUTURE YEAR BUDGET AMOUNTS						
						YEAR 1 2014-2015	YEAR 2 2015-2016	YEAR 3 2016-2017	YEAR 4 2017-2018	YEAR 5 2018-2019	YEAR 6-10 2020-2024	YEAR 11-15 2025- 2029
5517	55171	BATIQUITOS LIFT STATION, PUMP REPLACEMENT	SEWER REPL	905,000	250,000	655,000						
		BUENA INTERCEPTOR SEWER ACCESS ROAD IMPROVEMENTS	SEWER REPL	150,000	0		150,000					
		BUENA INTERCEPTOR SEWER REALIGNMENT - EAST SEGMENT	SEWER REPL	1,987,000	0		507,000	1,480,000				
5518	55181	BUENA INTERCEPTOR REHAB AT EWPCF PLANT (REIMB) (1)	SEWER REPL	100,000	100,000							
5501	55011	BUENA INTERCEPTOR SEWER IMPROVEMENTS	SEWER REPL	3,326,000	207,899	1,154,101	1,964,000					
5501	55012	BUENA INTERCEPTOR SEWER IMPROVEMENTS	SEWER CONN	500,000	0	500,000						
5507	55071	CALAVERA HILLS TREATMENT PLANT - DEMOLITION (1)	SEWER REPL	723,500	723,500	-	-					
		CHINQUAPIN LIFT STATION FORCE MAIN OUTFALL REALIGNMENT	SEWER REPL	212,000	0		60,000	152,000				
		CREST DRIVE SEWER EXTENSION	OTHER	350,000	0			350,000				
		FARADAY AVENUE AND ECR SEWER REPLACMENT - ORION TO PAR	SEWER CONN	1,540,000	0		140,000	1,400,000				
5519	55191	FLOW METER REPLACEMENT	SEWER REPL	100,000	100,000							
5527	55271	FOXES LANDING LIFT STATION FORCEMAIN REHABILITATION	SEWER REPL	225,000	25,000	200,000						
5526	55261	FOXES LANDING LIFT STATION WET WELL AND PUMP REPLACEMENT	SEWER REPL	3,050,000	2,650,000	400,000						
5528	55281	GATESHEAD SEWER LIFT STATION REMOVAL	SEWER REPL	74,000	74,000							
5509	55091	HOME PLANT LIFT STATION REPLACEMENT AND FORCE MAIN	SEWER REPL	4,139,000	4,139,000							
		LAS PALMAS TRUNK SEWER	SEWER CONN	2,420,000	0		430,000	1,990,000				
5514	55141	LEUCADIA TRUNK SEWER REHABILITATION/AVENIDA ENCINAS GRAVITY SEWER	SEWER REPL	150,000	150,000							
		MARRON ROAD SEWER REPLACEMENT	SEWER CONN	350,000	0		350,000					
3537	35371	NORTH AGUA HEDIONDA INTERCEPTOR SEWER - WEST SEGMENT (1)	SEWER REPL	5,854,000	5,854,000							
		NORTH BATIQUITOS INTERCEPTOR SEWER ACCESS ROAD IMPROVEMENTS	SEWER REPL	250,000	0		250,000					
		NORTH BATIQUITOS LIFT STATION FORCE MAIN REHABILITATION	SEWER REPL	550,000	0	115,000	435,000					
5531	55311	NORTHWEST QUADRANT CIPP SEWER REHAB	SEWER REPL	700,000	0	700,000						
5522	55221	OCCIDENTAL SEWER IMPROVEMENTS (1)	SEWER REPL	849,000	849,000							
5520	55201	ODOR AND CORROSION PREVENTION ASSESSMENT	SEWER REPL	100,000	100,000							
5529	55291	POINSETTIA LIFT STATION EMERGENCY OVERFLOW BASIN	SEWER REPL	1,200,000	30,000	290,000	880,000					
		QUARRY CREEK SEWER EXTENSION (SBA "A" - REIMB AGREEMENT)	OTHER	567,000	0	567,000						
5531	55311	SEWER EASEMENT ACCESS PROGRAM	SEWER REPL	400,000	400,000							
3840	38401	SEWER LIFT STATION REPAIRS AND UPGRADES	SEWER REPL	3,710,380	1,460,380	150,000	150,000	150,000	150,000	150,000	750,000	750,000
5513	55131	SEWER LINE CONDITION ASSESSMENT	SEWER REPL	633,000	473,000	80,000	80,000					
5503	55031	SEWER LINE REFURBISHMENT/REPLACEMENT AND MANHOLES	SEWER REPL	8,217,896	3,727,896	330,000	100,000	100,000	330,000	330,000	1,650,000	1,650,000
5504	55041	SEWER MONITORING PROGRAM	SEWER CONN	612,000	254,000	50,000	22,000	22,000	22,000	22,000	110,000	110,000
5533	55331	SIMSBURY SEWER EXTENSION	SEWER REPL	161,000	0	161,000						
5524	55241	TAMARACK SEWER RELOCATION AT RAILROAD RIGHT-OF-WAY	SEWER REPL	252,000	252,000							
5502	55021	TERRAMAR LIFT STATION REPLACEMENT (1)	SEWER REPL	987,000	987,000							
5534	55341	TERRAMAR SEWER REPLACEMENT - EL ARBOL AND LOS ROBLES	SEWER REPL	1,250,000	0	1,250,000						
5515	55151	VANCOUVER SEWER EXTENSION (1)	SEWER REPL	1,006,000	1,006,000							
5535	55351	VISTA/CARLSBAD INTERCEPTOR SEWER BUENA VISTA LIFT STATION IMPROVEMENTS	SEWER CONN	1,075,000	0	100,000	225,000	750,000				
		VISTA/CARLSBAD INTERCEPTOR SEWER REHABILITATION (VC1-VC2)	SEWER REPL	141,000	0		20,000	121,000				
3950	39501	VISTA/CARLSBAD INTERCEPTOR SEWER REPLACEMENT (VC-3)	SEWER CONN	2,688,200	0		596,200	2,092,000				
5508	55082	VISTA/CARLSBAD INTERCEPTOR SEWER BUENA VISTA LIFT STATION FORCE MAIN (VC-4) (1)	SEWER CONN	5,725,000	5,725,000							
3886	38861	VISTA/CARLSBAD INTERCEPTOR SEWER REACH (VC-11B)	SEWER CONN	6,930,000	6,930,000							
3492	34921	VISTA/CARLSBAD INTERCEPTOR SEWER AGUA HEDIONDA LS AND FM (VC12-VC13)	SEWER CONN	29,200,000	23,700,000	5,500,000						
3949	39491	VISTA/CARLSBAD INTERCEPTOR RELIEF SEWER (VC14-VC15)	SEWER CONN	18,600,000	16,100,000	2,500,000						

(1) = Project is in service and/or substantially complete and a Capital Project Description page is not included in the Technical Appendix.

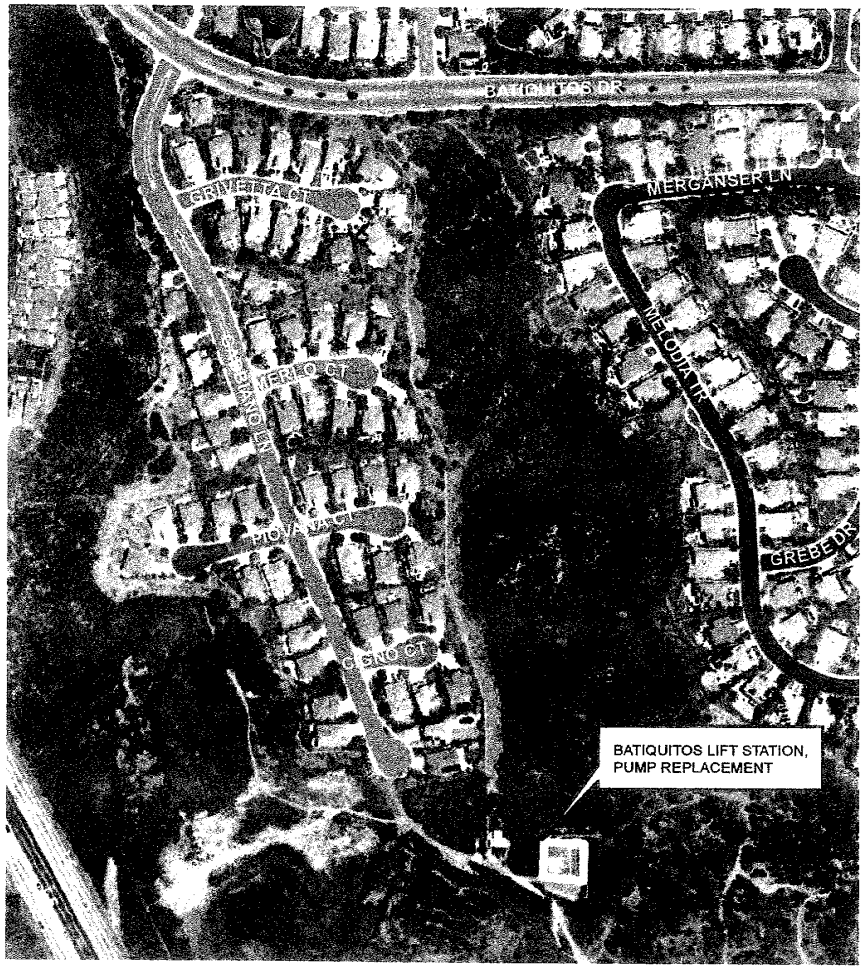
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - BATIQUITOS LIFT STATION, PUMP REPLACEMENT

PROJECT NAME

5517
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Batiquitos Sewer Lift Station at 7382 Gabbiano Lane, near the terminus of Gabbiano Lane and the north shoreline pedestrian trail along the lagoon.

PROJECT DESCRIPTION:

Replace the 3 pumps with new more efficient pumps along with discharge manifold and miscellaneous improvements to the lift station.

PROJECT NEED:

Useful life has been met on all 3 pumps. Replace pumps using a new pumping strategy to reduce overall station maintenance costs and increase reliability.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 5,000	Sewer Replacement
Design	$ 113,000	Sewer Replacement
Construction	$ 787,000	Sewer Replacement
Total Cost =	**$ 905,000**	

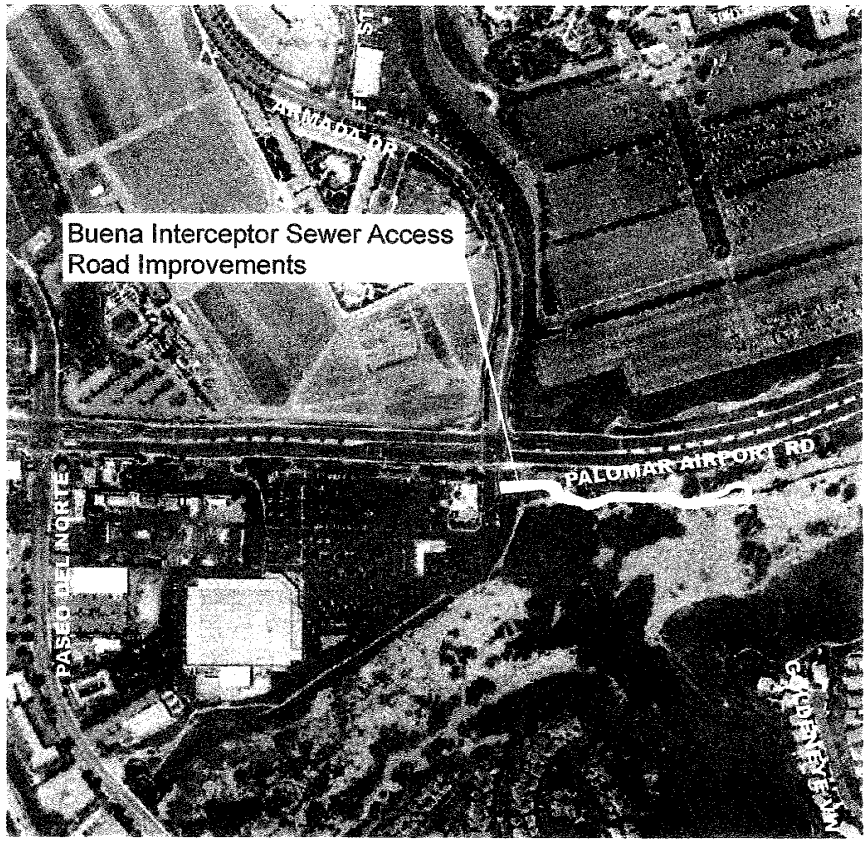
CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

SEWER COLLECTION SYSTEM - BUENA INTERCEPTOR SEWER ACCESS ROAD IMPROVEMENTS

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along the Buena Sewer immediately south of Palomar Airport Road and east of Costco.

PROJECT DESCRIPTION:

Restore access to approximately 1000 linear feet of existing easement area to provide a minimum 12' wide access road and turn around for maintenance vehicles along the Buena Sewer up to the connecting sewer coming from Goldeneye View Court located to the south. May include vegetation clearing and minor leveling of the ground surface.

PROJECT NEED:

Needed in order to restore access to the Buena Sewer and Carlsbad's collector sewer from the south so that maintenance and inspection of the pipelines can be performed in accordance with Carlsbad's Sanitary Sewer Management Plan.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 45,000	Sewer Replacement
Design	$ 30,000	Sewer Replacement
Construction	$ 75,000	Sewer Replacement
Total Cost =	**$150,000**	

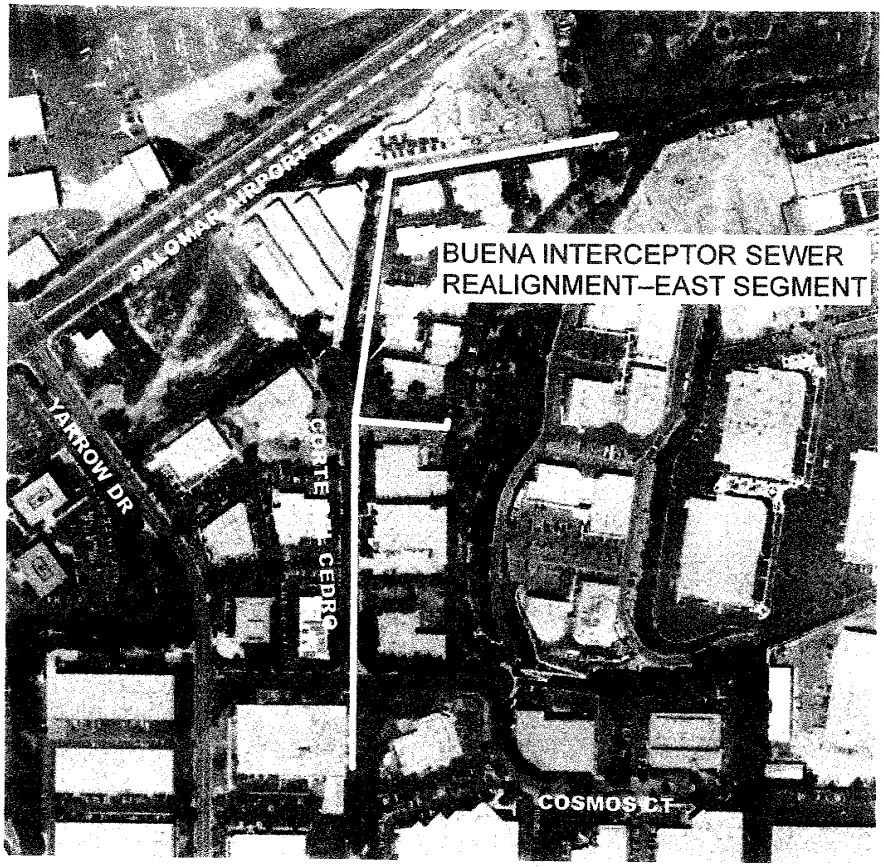
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - BUENA INTERCEPTOR SEWER REALIGNMENT–EAST SEGMENT

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Realignment of a portion of the Buena Interceptor Sewer from the southwesterly corner of the Lowe's project to an existing manhole located approximately 500 linear feet south of Cosmos Court.

PROJECT DESCRIPTION:

Realign approximately 2,500 linear feet of the existing Buena Interceptor Sewer out of its current alignment, which is located adjacent to a creek and construct a new pipeline and manholes within private parking lots and public street right-of-way. The project will be funded entirely by Carlsbad. A portion of the funding will come from sewer benefit area fees collected (SBA "G")

PROJECT NEED:

The existing pipe line in this area is made of VCP and is approximately 50-years old. The pipeline was inspected with CCTV in 2004 and found to have cracks in various locations and leaking pipe joints that allow groundwater infiltration. Additionally the pipe is located along a natural streambed that prevents proper inspection and maintenance without performing significant clearing and access improvements. The manholes in their current location are susceptible to significant inflow during heavy rain events, which can lead to Sanitary Sewer Overflows.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$ 40,000	Sewer Replacement
Environmental	$ 50,000	Sewer Replacement
Design	$ 307,000	Sewer Replacement
Right of Way	$ 110,000	Sewer Replacement
Construction	$1,480,000	Sewer Replacement
Total Cost =	**$1,987,000**	

CAPITAL PROJECT DESCRIPTION

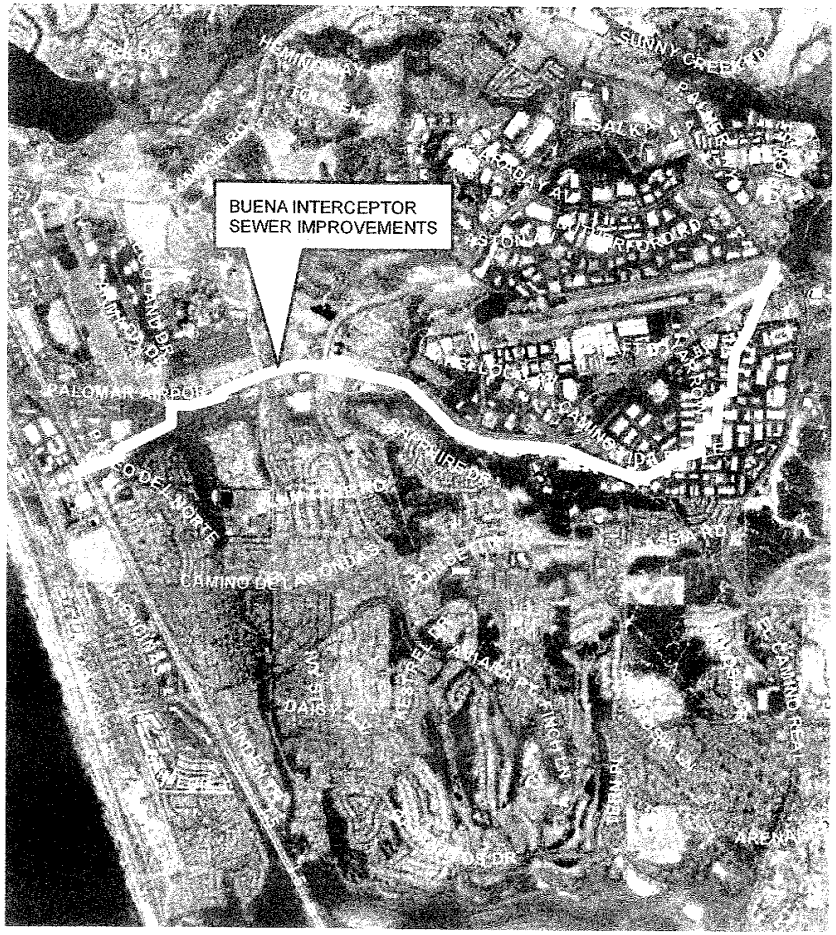
SEWER COLLECTION SYSTEM – BUENA INTERCEPTOR SEWER IMPROVEMENTS

PROJECT NAME

5501

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Buena Interceptor Sewer from Cosmos Court to Paseo Del Norte.

PROJECT DESCRIPTION:

Rehabilitate portions of the 17,000 foot long Buena Interceptor Sewer and all of the manholes.

PROJECT NEED:

Required to meet the reliability of the sewage system and minimize the risk of a sewage spill.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$60,000	Sewer Replacement
Design	$270,000	Sewer Replacement
Construction	$3,496,000	Sewer Replacement/Conn
Total Cost =	**$3,826,000**	

CAPITAL PROJECT DESCRIPTION

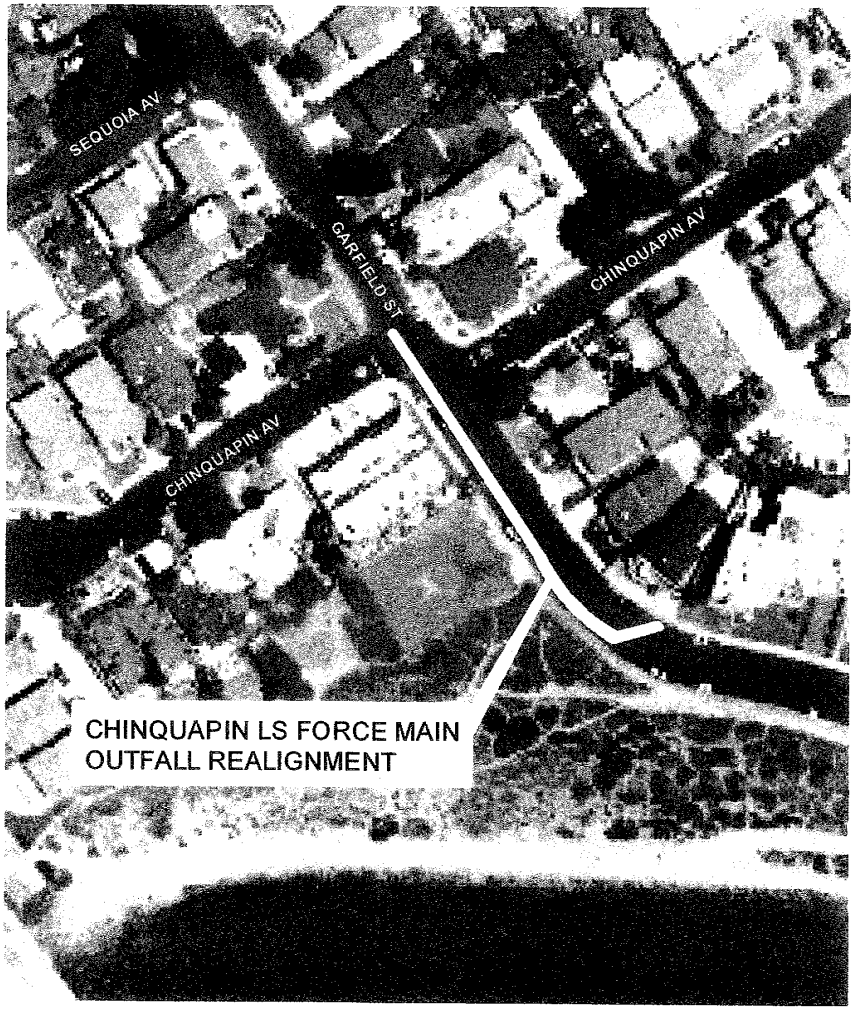
SEWER COLLECTION SYSTEM - CHINQUAPIN LS FORCE MAIN OUTFALL REALIGNMENT

PROJECT NAME

NONE

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

In Garfield Street beginning at Chinquapin Ave then southerly approximately 350 lineal feet

PROJECT DESCRIPTION:

Reconfigure the existing Chinquapin Lift Station outfall by constructing approximately 350 lineal feet of 6 inch diameter force main connecting to an existing alternative gravity flow system

PROJECT NEED:

Inspection of the current outfall has shown the pipeline flow exceeds ideal operating levels. Extending the outfall and connection to an existing underutilized outfall pipeline will reduce risk of a sewer spill.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 5,000	Sewer Replacement
Design	$ 55,000	Sewer Replacement
Construction	$ 152,000	Sewer Replacement
Total Cost =	**$ 212,000**	**Sewer Replacement**

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - CREST DRIVE SEWER EXTENSION

PROJECT NAME

NONE

PROJECT NO.

PROJECT LOCATION MAP:

PROJECT LOCATION:

The project is in Crest Dr. south of its intersection with Forest Ave. This residential area is located adjacent to the western boundary of Hosp Grove Park.

PROJECT DESCRIPTION:

Construction approximately 500 linear feet of 8-inch diameter sewer pipeline and tie into existing downstream sewer collector.

PROJECT NEED:

The project will allow for existing properties currently using septic sewer system to be connected to the city's sewer collection system. The elimination of septic system in urban areas prevents potential groundwater contamination that can occur as a result of saturated soil from over- irrigation or failing leach fields. A septic system failure can be a public health concern since the effluent rises to the surface or travels to an adjacent area lower in elevation. Additionally the parcels may not have adequate space to locate a replacement leach field when the septic system fails.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$ 10,000	Other
Environmental	$ 10,000	Other
Design	$ 80,000	Other
Construction	$250,000	Other
Total Cost =	**$350,000**	

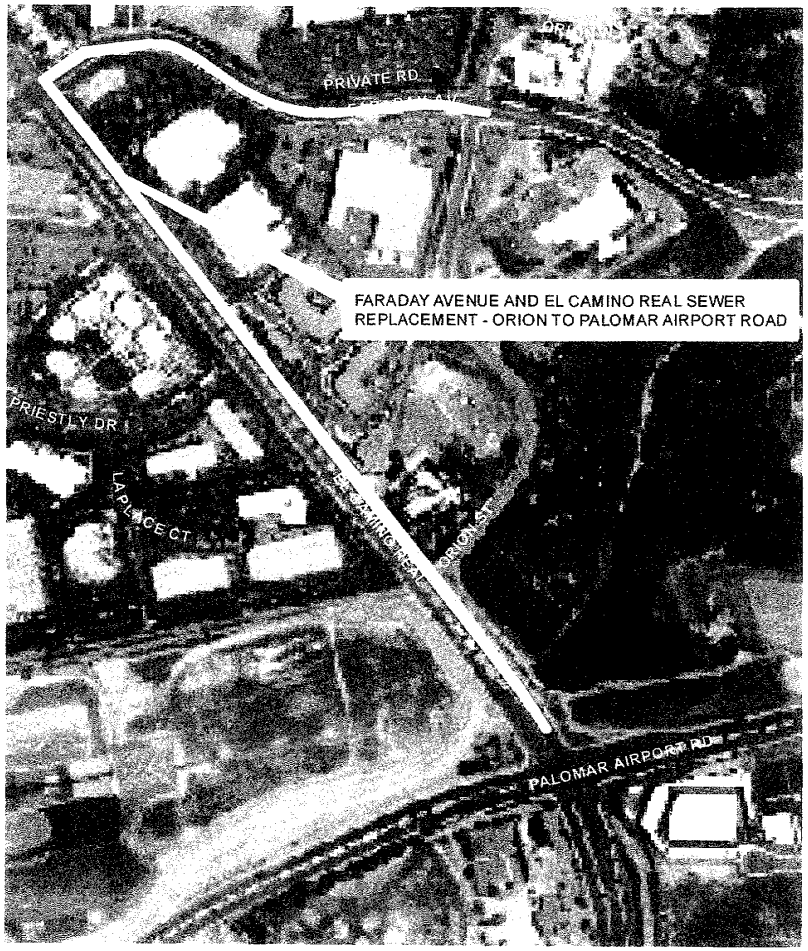
CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

SEWER COLLECTION SYSTEM - FARADAY AVENUE AND EL CAMINO REAL SEWER REPLACEMENT - ORION TO PALOMAR AIRPORT ROAD

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Located in Faraday Avenue for Orion to El Camino Real (ECR) and extending southerly in ECR to approximately 100 feet north of Palomar Airport Rd.

PROJECT DESCRIPTION:

Replace the existing 8-inch gravity sewer with approximately 3,300 lineal feet of 12 inch diameter sewer.

PROJECT NEED:

The new 12-inch sewer will allow all of the sewage being pumped from the El Fuerte LS to be conveyed by gravity to the Encina Water Pollution Control Facility via the Buena Interceptor Sewer instead of being pumped a second time at the Cannon Road Lift Station (CRLS) The new pipeline will reduce pumping costs and minimize or eliminate the need for chemical addition at the El Fuerte LS to control odors. The project is recommended in the 2012 Sewer Master Plan.

FINANCING:

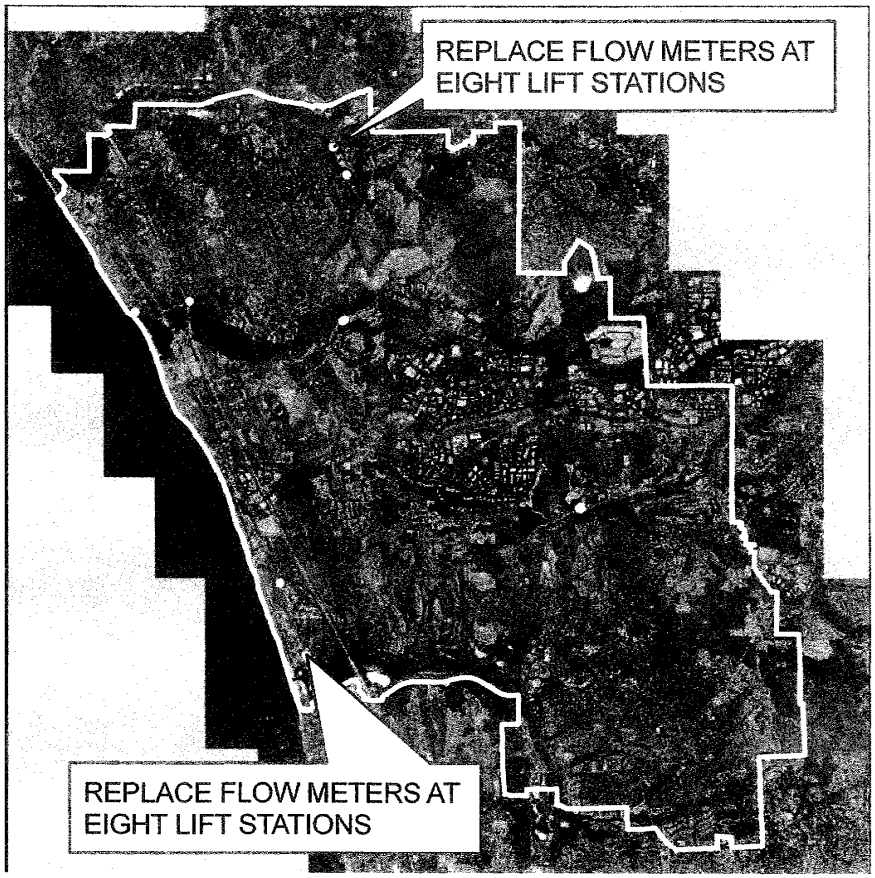
Purpose	Estimated Cost	Funding Source
Environmental	$ 15,000	Sewer Conn.
Design	$ 125,000	Sewer Conn.
Construction	$ 1,400,000	Sewer Conn.
Total Cost =	**$ 1,540,000**	**Sewer Conn.**

CAPITAL PROJECT DESCRIPTION

5519
PROJECT NO.

SEWER COLLECTION SYSTEM - FLOW METER REPLACEMENT
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

8 Sewer Lift Stations: Chinquapin, Fox's, Villas, Poinsettia, Cannon, Simsbury, Knots and Sand Shell.

PROJECT DESCRIPTION:

Replace flow meters at the above locations with in-line flow meters.

PROJECT NEED:

Currently 4 flow meters are not working and the rest are failing. These old units are not recording accurate flow from the lift station to the SCADA system where the data is used to diagnose inefficiencies.

FINANCING:

Purpose	Estimated Cost	Funding Source
Construction	$ 100,000	Sewer Replacement
Total Cost =	**$ 100,000**	

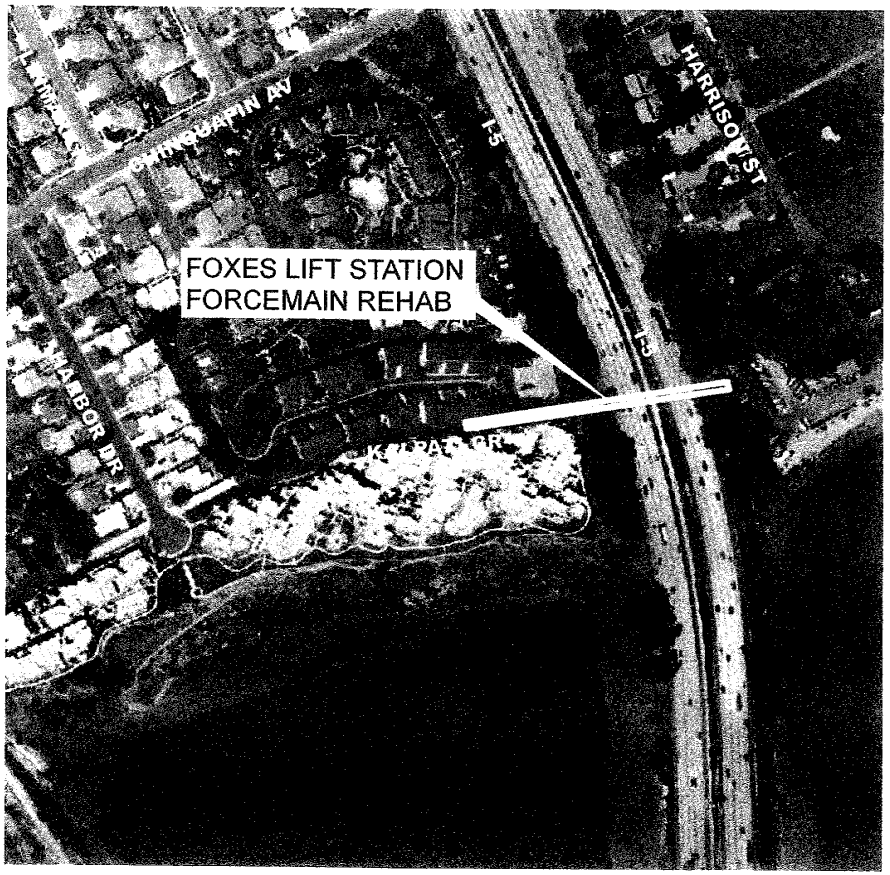
CAPITAL PROJECT DESCRIPTION

5527
PROJECT NO.

SEWER COLLECTION SYSTEM - FOXES LANDING LIFT STATION FORCEMAIN REHABILITATION

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

The alignment runs from the Foxes Lift Station site at 4155 Harrison St. to the west under Interstate 5 where it discharges into an existing manhole on the west side of Interstate 5 on the north shore of Agua Hedionda Lagoon.

PROJECT DESCRIPTION:

Install Cured-in-Place Pipe in the out of service ductile iron pipe (DIP) force main

PROJECT NEED:

The original DIP force main was paralleled with a HDPE pipeline in 2000 which became the primary operating force main. This project will rehabilitate the original DIP force main which is now out of service thereby providing a redundant force main increasing the reliability of the lift station and reducing risk of a sewer spill in the vicinity of the Agua Hedionda Lagoon and provide operational flexibility for maintenance and repair of the lift station.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$ 25,000	Sewer Replacement
Construction	$200,000	Sewer Replacement
Total Cost =	**$225,000**	

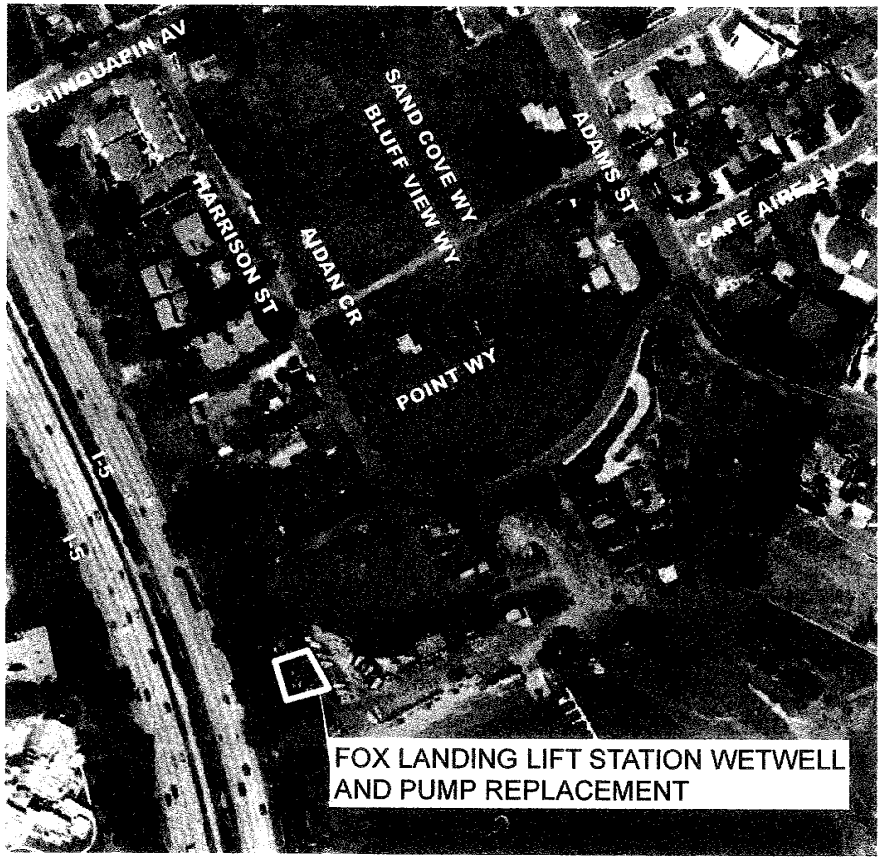
CAPITAL PROJECT DESCRIPTION

5526
PROJECT NO.

SEWER COLLECTION SYSTEM - FOXES LANDING LIFT STATION WETWELL AND PUMP REPLACEMENT

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

4115 Harrison St. located on the north shoreline of Agua Hedionda Lagoon east of and adjacent to Interstate 5.

PROJECT DESCRIPTION:

Replace the lift station's existing wet well and pumps.

PROJECT NEED:

The existing lift station has reached its useful life and needs to be upgraded to a more robust system including a larger wet well and more efficient pumps to comply with the City's Sewer System Management Plan and the State's Waste Discharge Requirements.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$ 60,000	Sewer Replacement
Environmental	$ 200,000	Sewer Replacement
Design	$ 350,000	Sewer Replacement
Construction	$2,440,000	Sewer Replacement
Total Cost =	**$3,050,000**	

CAPITAL PROJECT DESCRIPTION

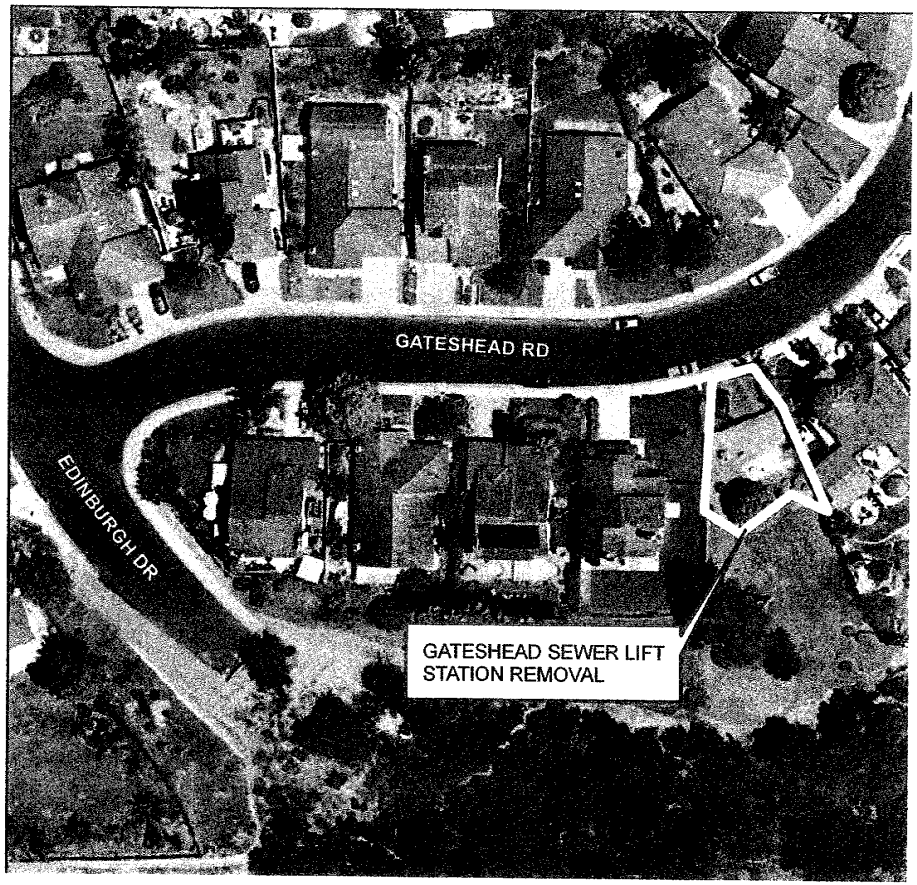
SEWER COLLECTION SYSTEM - GATESHEAD SEWER LIFT STATION REMOVAL

PROJECT NAME

5528

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

4779 Gateshead Rd

PROJECT DESCRIPTION:

Remove the existing Gateshead sewer lift station and extend sewer pipeline to connect to a gravity sewer line.

PROJECT NEED:

Construction of the final phase of the Robertson Ranch Development will provide an adjacent gravity flow sewer system that the Gateshead sewer lift station collection basin can connect to. The lift station will no longer be necessary to provide sewer service to that collection area.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$ 3,000	Sewer Replacement
Construction	$ 71,000	Sewer Replacement
Total Cost =	**$ 74,000**	

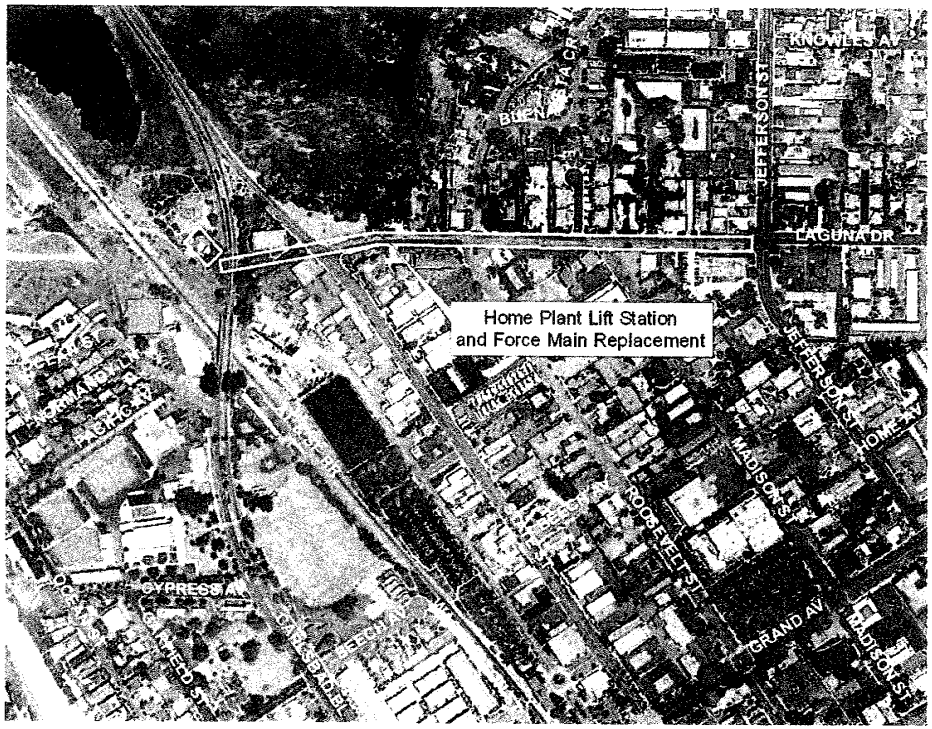
CAPITAL PROJECT DESCRIPTION

5509
PROJECT NO.

SEWER COLLECTION SYSTEM – HOME PLANT LIFT STATION AND FORCE MAIN REPLACEMENT

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Home Plant Lift Station located on the west side of Carlsbad Blvd. on the south side of Buena Vista Lagoon. The force main runs from the lift station along Laguna Drive to Jefferson Street.

PROJECT DESCRIPTION:

Replace the existing sewer lift station and construct approximately 2000 feet of 10" HDPE force main.

PROJECT NEED:

Field review has shown that sand and grease accumulation in the wet well is due to undersized pumps. Installing larger pumps, replacing the existing force main, and completing the other upgrades will reduce the maintenance costs at the pump station.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$540,938	Sewer Replacement
Environmental	$72,363	Sewer Replacement
Construction	$3,525,699	Sewer Replacement
Total Cost =	**$4,139,000**	

CAPITAL PROJECT DESCRIPTION

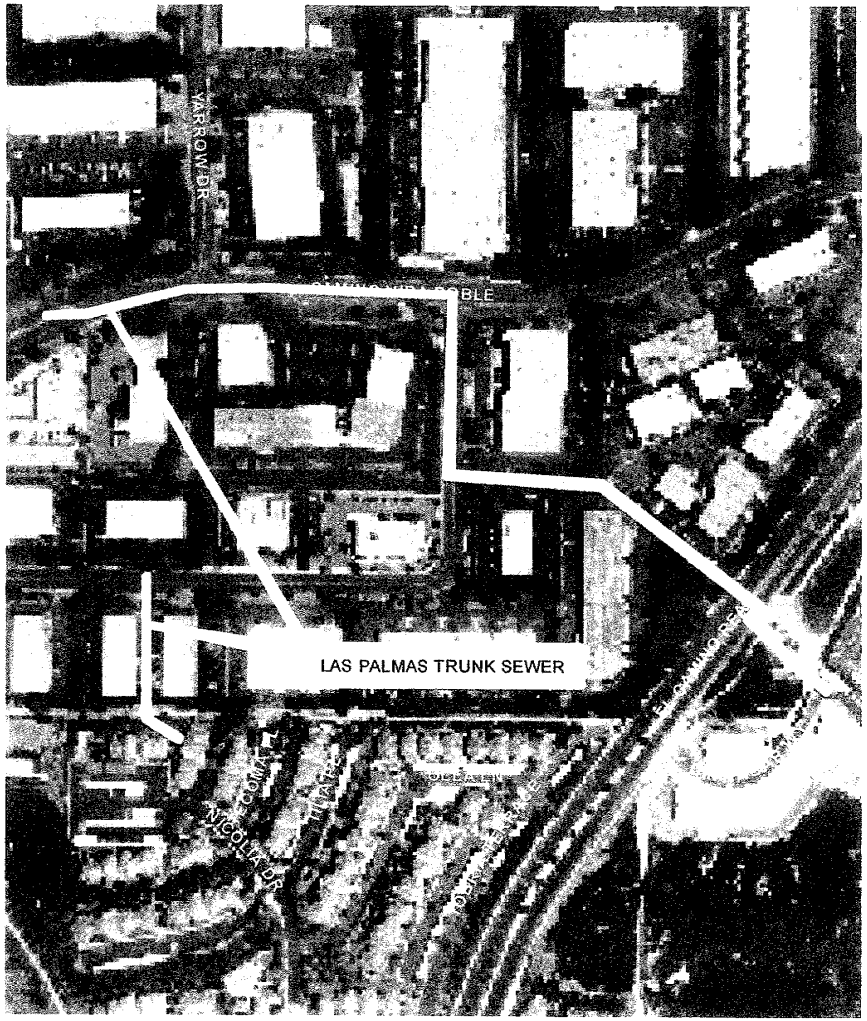
SEWER COLLECTION SYSTEM - LAS PALMAS TRUNK SEWER

PROJECT NAME

NONE

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Beginning at the Poinsettia Lift Station Force Main break manhole near Copper Way and extending to the Buena Sewer located near the intersection of Yarrow Drive and Camino Vida Roble.

PROJECT DESCRIPTION:

Existing Poinsettia LS Force Main currently discharges into the Vallecitos Interceptor Sewer(VIS). This project will remove the force main connection to the Vallecitos Interceptor and extend a new 15-inch gravity sewer approximately 2500 Lineal Feet to a new manhole to be constructed on the Buena Interceptor Sewer. The project also includes the installation of 400 Lineal Feet of 8-inch sewer from the end of Nicolia Drive to Las Palmas Drive to remove a second connection to the VIS.

PROJECT NEED:

The project will remove all of Carlsbad's flow from the upstream end of the Vallecitos Interceptor Sewer. This will free-up capacity in the VIS which the Vallecitos Water District needs to meet their future flow projections. Carlsbad capacity rights in the VIS will be sold back to VWD to offset a portion of Carlsbad's costs for the new pipeline. The project is recommended in the 2012 Sewer Master Plan.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 30,000	Sewer Conn.
Design	$ 270,000	Sewer Conn.
Property	$ 130,000	Sewer Conn.
Construction	$ 1,990,000	Sewer Conn.
Total Cost =	**$ 2,420,000**	**Sewer Conn.**

CAPITAL PROJECT DESCRIPTION

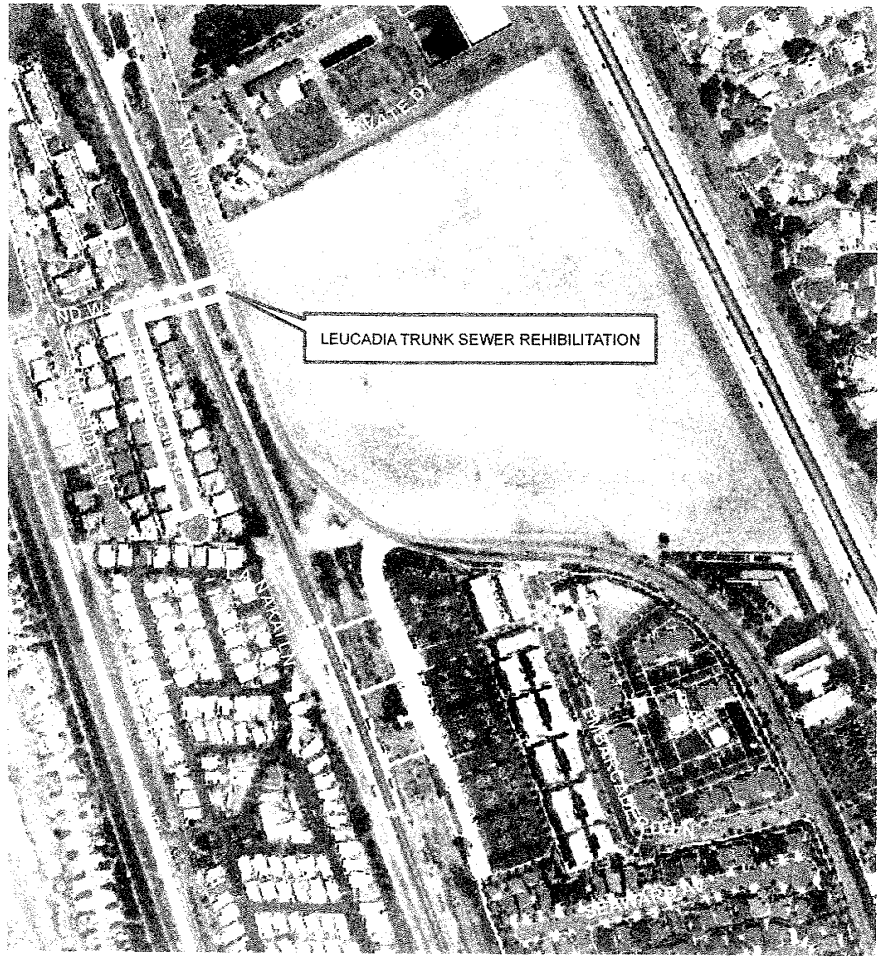
SEWER COLLECTION SYSTEM – LEUCADIA TRUNK SEWER REHABILITATION

PROJECT NAME

5514

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

The sewer pipeline alignment runs easterly in an easement along the north boundary line of the Lanakai Mobile Home Park. The pipeline then crosses under the railroad tracks and terminates at a manhole north of the entrance to the Coaster Station along Avenida Encinas.

PROJECT DESCRIPTION:

The project includes rehabilitation of approximately 670 feet of 21 inch diameter gravity sewer pipeline. The pipeline is owned and operated by the Leucadia Wasterwater District (LWD) and the construction contract will be managed by the LWD. Carlsbad contributes wastewater flow to the pipeline and will contribute funds towards the rehabilitation in proportion to Carlsbad's flow in the pipeline.

PROJECT NEED:

Leucadia Wastewater District's inspection of the pipeline has found it in need of rehabilitation.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$65,000	Sewer Replacement
Property Acquisition	$10,000	Sewer Replacement
Construction	$75,000	Sewer Replacement
Total Cost =	**$150,000**	

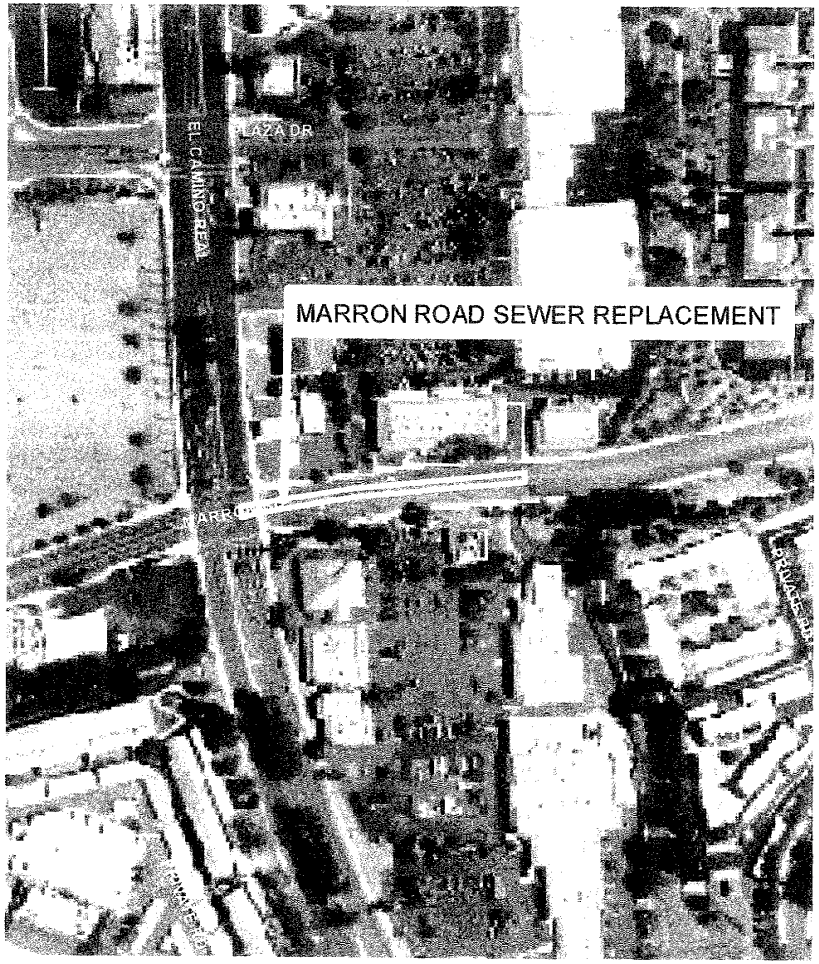
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - MARRON ROAD SEWER REPLACEMENT

PROJECT NAME

NONE
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

The project is located in Marron Road immediately east of the intersection of Marron Road and El Camino Real.

PROJECT DESCRIPTION:

Replace the existing 8-inch diameter sewer pipeline with a 12-inch diameter pipeline.

PROJECT NEED:

The existing 8-inch diameter sewer is insufficiently sized to convey wet weather flow.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$ 94,000	Sewer Conn.
Construction	$ 256,000	Sewer Conn.
Total Cost =	**$ 350,000**	**Sewer Conn.**

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

SEWER COLLECTION SYSTEM - NORTH BATIQUITOS INTERCEPTOR SEWER ACCESS ROAD IMPROVEMENTS

PROJECT NAME

PROJECT LOCATION MAP:

PROJECT LOCATION:

This project is located on undeveloped land along the north shoreline of the Batiquitos Lagoon southwest of the intersection of El Camino Real and Arenal Rd.

PROJECT DESCRIPTION:

Construct a decomposed granite access road over the existing sewer alignment.

PROJECT NEED:

Existing portion of sewer is inaccessible in the easement and the construction of an access road is necessary to maintain the sewer.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 75,000	Sewer Replacement
Design	$ 50,000	Sewer Replacement
Construction	$125,000	Sewer Replacement
Total Cost =	**$250,000**	

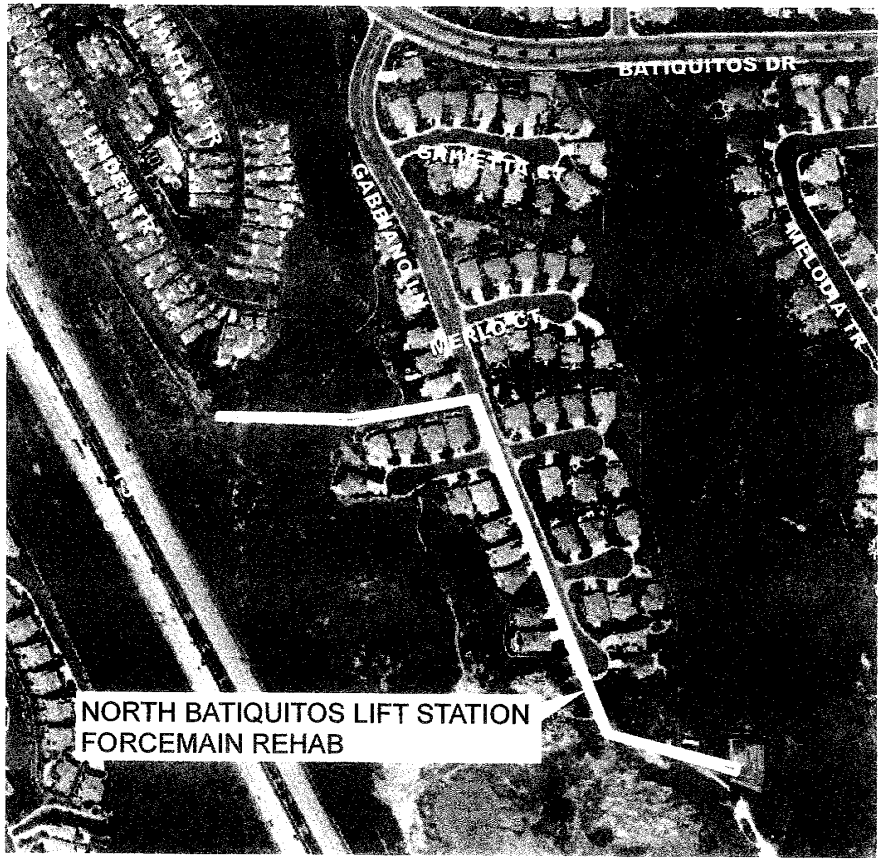
CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

SEWER COLLECTION SYSTEM - NORTH BATIQUITOS LIFT STATION FORCEMAIN REHABILATATION

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Gabbiano Lane and Piovana Court and easements in this vicinity.

PROJECT DESCRIPTION:

Rehabilitate the original force main with the installation of a pipe liner.

PROJECT NEED:

A new PVC force main was constructed for the lift station in the late 1990's, the original ductile iron pipe force main is connected to the lift station and with rehabilitation it will provide a redundant force main for the station which will provide operational advantages and a reduced risk of sewer spills.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 20,000	Sewer Replacement
Design	$100,000	Sewer Replacement
Construction	$430,000	Sewer Replacement
Total Cost =	**$550,000**	

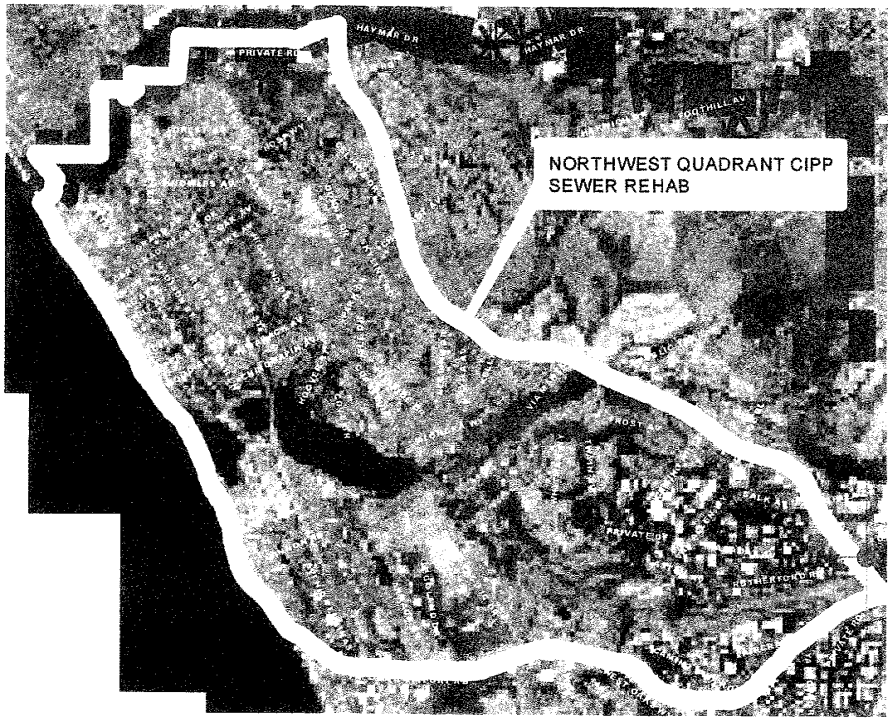
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - NORTHWEST QUADRANT CIPP SEWER REHAB

PROJECT NAME

5531
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Various Streets and Easements in the City's NW Quadrant.

PROJECT DESCRIPTION:

Rehabilitation of numerous collector sewer pipes with the installation of cured in place pipe (CIPP).

PROJECT NEED:

The City has CCTV inspected the sewer collection system and found numerous cracks and offsets in the older vitrified clay pipe collection system. The pipelines should be rehabilitated with CIPP providing an additional 50 years of useful life.

FINANCING:

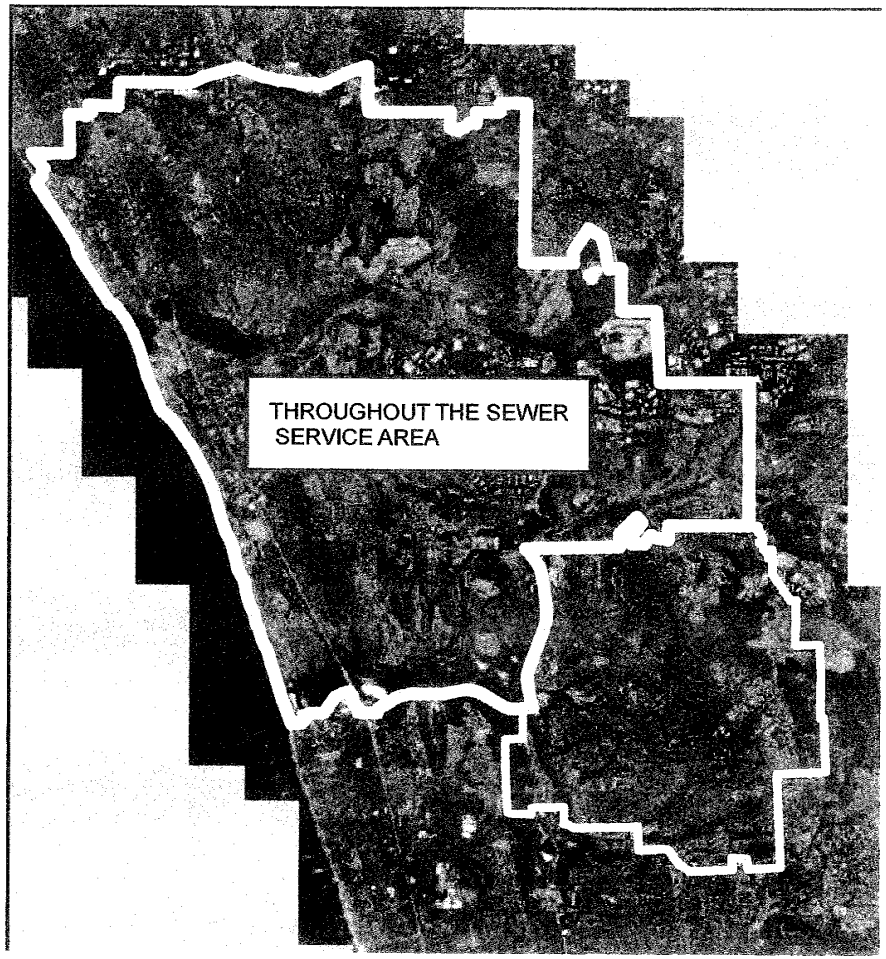
Purpose	Estimated Cost	Funding Source
Study & Reports	$ 10,000	Sewer Replacement
Environmental	$ 20,000	Sewer Replacement
Design	$ 50,000	Sewer Replacement
Construction	$ 620,000	Sewer Replacement
Total Cost =	**$ 700,000**	**Sewer Replacement**

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - ODOR AND CORROSION PREVENTION ASSESSMENT
PROJECT NAME

5520
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Various locations within the City where odor complaints are most prevalent typically at sewer manholes and lift stations.

PROJECT DESCRIPTION:

Investigate the cause of odor complaints, perform air and liquid phase sampling as needed and develop recommendations for long term solutions. Incorporate short term mitigation improvements as appropriate.

PROJECT NEED:

The odor complaints are most prevalent during the hot weather, however the odors can create health and safety concerns or at a minimum a significant nuisance

FINANCING:

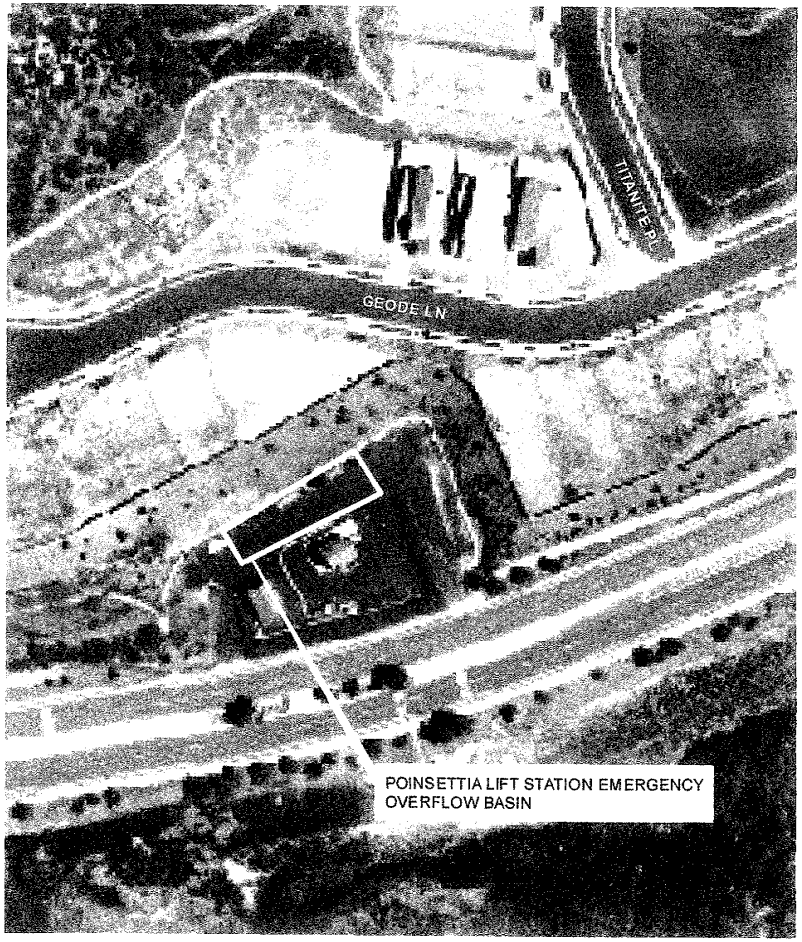
Purpose	Estimated Cost	Funding Source
Studies & Reports	$ 100,000	Sewer Replacement
Total Cost =	**$ 100,000**	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - POINSETTIA LIFT STATION EMERGENCY OVERFLOW BASIN
PROJECT NAME

5529
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

2425 Poinsettia Ln existing lift station on the north side of Poinsettia Ln east of Alicante Rd.

PROJECT DESCRIPTION:

Construct a new underground wastewater overflow structure to provide emergency storage for the Poinsettia Lift Station.

PROJECT NEED:

The current station facility has insufficient wastewater storage capacity necessary to reduce the risk of a sewer spill in the case of an emergency shutdown of the station. The storage will also benefit operation, maintenance and future repairs efforts as they become necessary in the future.

FINANCING:

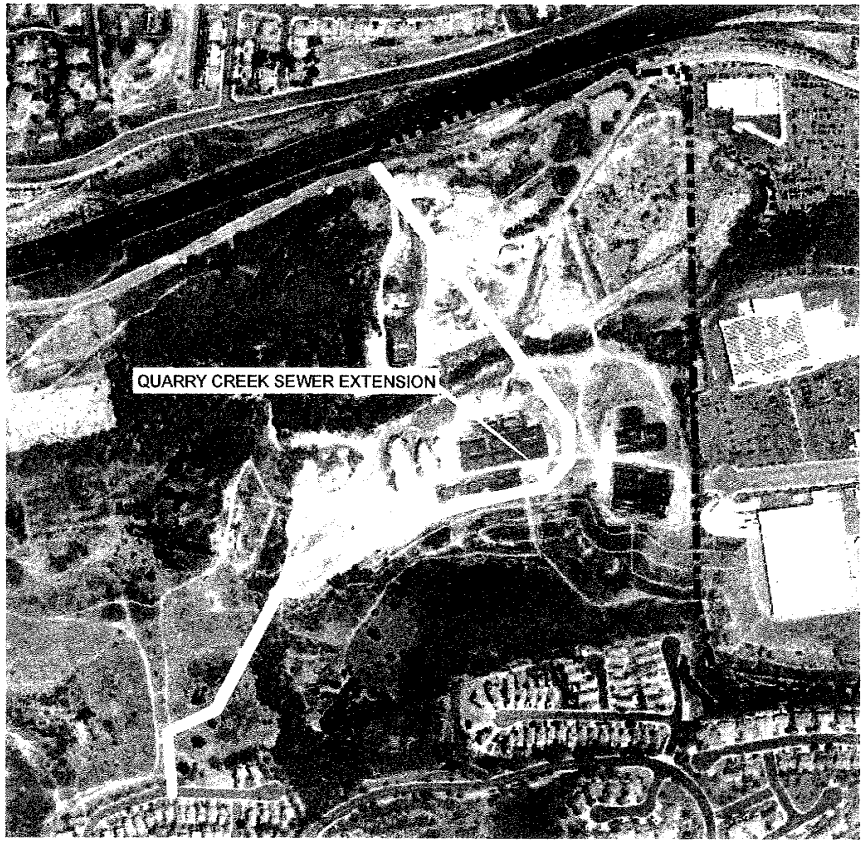
Purpose	Estimated Cost	Funding Source
Environmental	$ 30,000	Sewer Replacement
Design	$ 90,000	Sewer Replacement
Construction	$ 1,080,000	Sewer Replacement
Total Cost =	**$ 1,200,000**	**Sewer Replacement**

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

SEWER COLLECTION SYSTEM - QUARRY CREEK SEWER EXTENSION
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

In the Quarry Creek development which is in northeast quadrant east of College Blvd. and south of State Highway 78 along Buena Vista Creek.

PROJECT DESCRIPTION:

The quarry Creek development will include approximately 1,500 linear feet of sewer pipeline which will intertie both Quarry Creek flow and the flow from the existing Simsbury Lift Station basin to Reach 1 of the Vista/Carlsbad Interceptor (VC1).

PROJECT NEED:

The project allows for the abandonment of the Simsbury Lift Station by providing a gravity sewer pipeline to discharge from the Lift Station basin through the Quarry Creek Development. The City will remove the Simsbury Lift Station and construct approximately 350 lineal ft. of pipeline in the existing Simsbury Ct. in a related but separate CIP Project, "Simsbury Lift Station Removal".

FINANCING:

Purpose	Estimated Cost	Funding Source
Construction	$567,000	Other/SBA "A"
Total Cost =	**$567,000**	

CAPITAL PROJECT DESCRIPTION

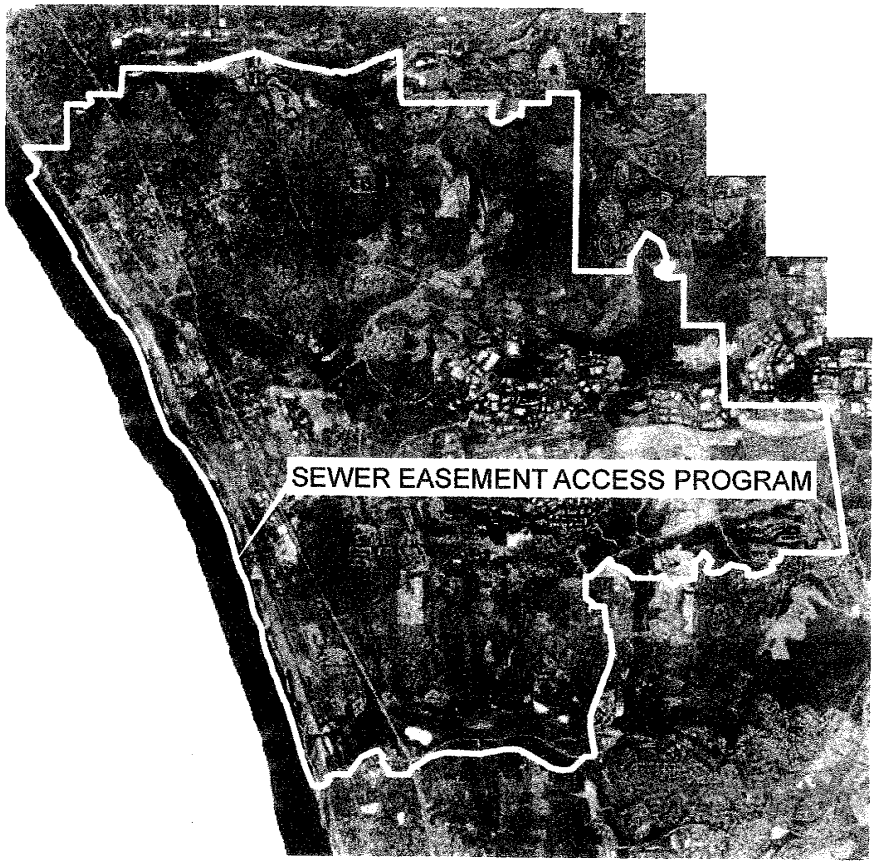
SEWER COLLECTION SYSTEM - SEWER EASEMENT ACCESS PROGRAM

PROJECT NAME

5531

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Various locations throughout the Carlsbad Sewer service area.

PROJECT DESCRIPTION:

Develop a program to re-establish access to existing sewer infrastructure located in easements and unimproved areas. The initial phase of the program will be to prepare a map of the biology over the sewer easements, determine areas of impact and prepare cost estimates for vegetation clearing, mitigation, surface improvements and annual maintenance. Cost estimates will also be developed for obtaining resource agency permits and processing the project through CEQA. The budget estimates developed in the initial phase will be used to develop program level costs for future years.

PROJECT NEED:

The City owns and operates sewer pipelines which were constructed in undeveloped areas and open space. It is necessary to have access to the pipelines and manholes in order to maintain and operate the system adequately as well as providing emergency access necessary to comply with increasingly more stringent State regulations and eliminate fines related to noncompliance. Insufficiently access will result in neglect of the system maintenance and ultimately system failures and sewer spills.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$400,000	Sewer Replacement
Total Cost =	**$400,000**	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - SEWER LIFT STATION REPAIRS AND UPGRADES

PROJECT NAME

3840

PROJECT NO.

PROJECT LOCATION MAP:

LOCATIONS THROUGHOUT THE CITY

PROJECT LOCATION:

Sewer Lift Stations at various locations throughout the Carlsbad sewer service area.

PROJECT DESCRIPTION:

Prepare engineering studies and construction documents, resolve noise and odor nuisances and perform the repairs necessary to maintain the safety and reliability of the lift stations.

PROJECT NEED:

A higher level of preventive maintenance is required at all lift stations to comply with the City's Sanitary Sewer System Management Plan (SSMP) as required by the State and approved by the City Council in 2009.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$100,000	Sewer Replacement
Construction	$3,610,380	Sewer Replacement
Total Cost =	**$3,710,380**	

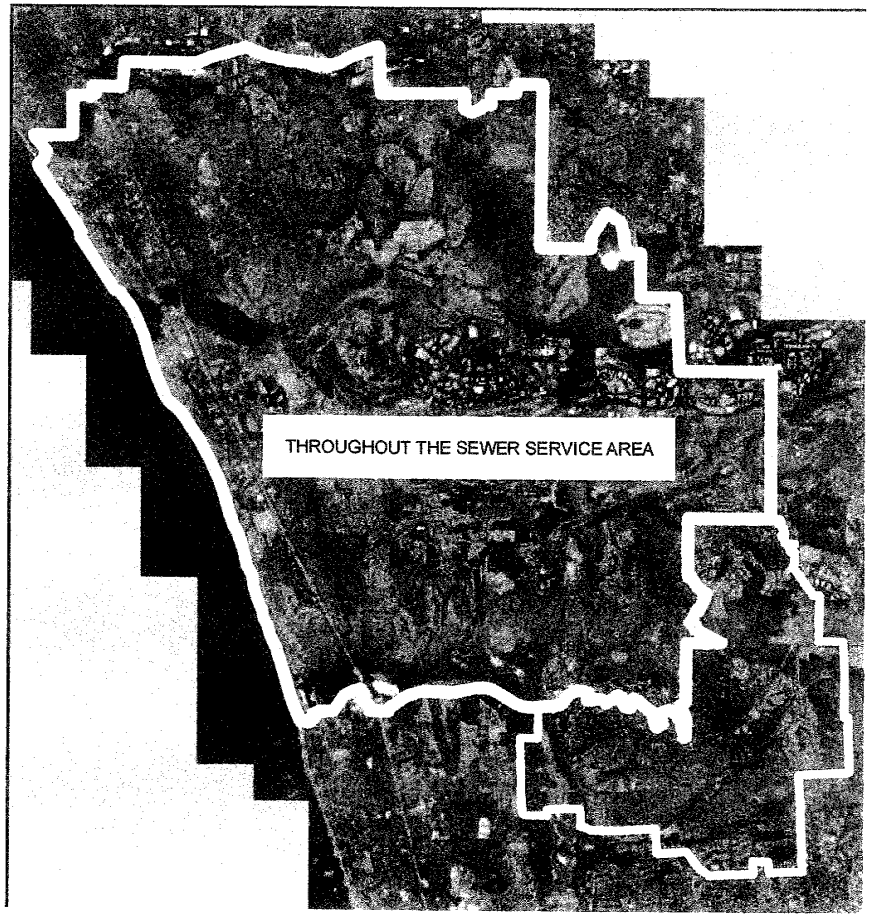
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – SEWER LINE CONDITION ASSESSMENT

PROJECT NAME

5513
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Various locations throughout the Carlsbad sewer service area.

PROJECT DESCRIPTION:

The project consists of inspection and performing a condition assessment report to determine condition of the city's sewer force mains and siphons. Cleaning and condition assessment of the large diameter (>12") trunk sewers will also be conducted as required per the City's SSMP.

PROJECT NEED:

Per the Waste Discharge Requirement condition assessments of the sewer system force mains and siphons are required on a regular basis. Based on the inspection and ranking of needed improvements, staff will be able to better prioritize future Capital Improvement Program projects.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$633,000	Sewer Replacement
Total Cost =	**$633,000**	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - SEWER LINE REFURBISHMENT/REPLACEMENT

PROJECT NAME

5503
PROJECT NO.

PROJECT LOCATION MAP:

LOCATIONS THROUGHOUT THE CITY

PROJECT LOCATION:

Various locations within the Carlsbad sewer service area.

PROJECT DESCRIPTION:

Clean and refurbish existing sewer lines older than 30 years or replace if not able to refurbish. The sewer lines needing repair will be determined by yearly TV inspection. The work will include various methods of both rehabilitation and replacement techniques.

PROJECT NEED:

Maintain system in good condition to avoid major problems. A proactive approach to make necessary repairs.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design/Construction	$8,217,896	Sewer Replacement
Total Cost =	**$8,217,896**	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - SEWER MONITORING PROGRAM

PROJECT NAME

5504

PROJECT NO.

PROJECT LOCATION MAP:

LOCATIONS THROUGHOUT THE CITY

PROJECT LOCATION:

Citywide within the City's sewer service area.

PROJECT DESCRIPTION:

Monitor sewer flows and remaining capacities in lines and pump stations within the Carlsbad sewer service area. Perform sewer flow measurements and implement inflow and infiltration investigations when required. Update Sewer Master Plan and review adequacy of sewer fees as required.

PROJECT NEED:

To ensure that sewer flows do not exceed line capacity and to ensure timely upgrades of sewer systems in conformance with the Growth Management Standards.

FINANCING:

Purpose	Estimated Cost	Funding Source
Construction/Monitoring	$612,000	Sewer Connection
Total Cost =	**$612,000**	

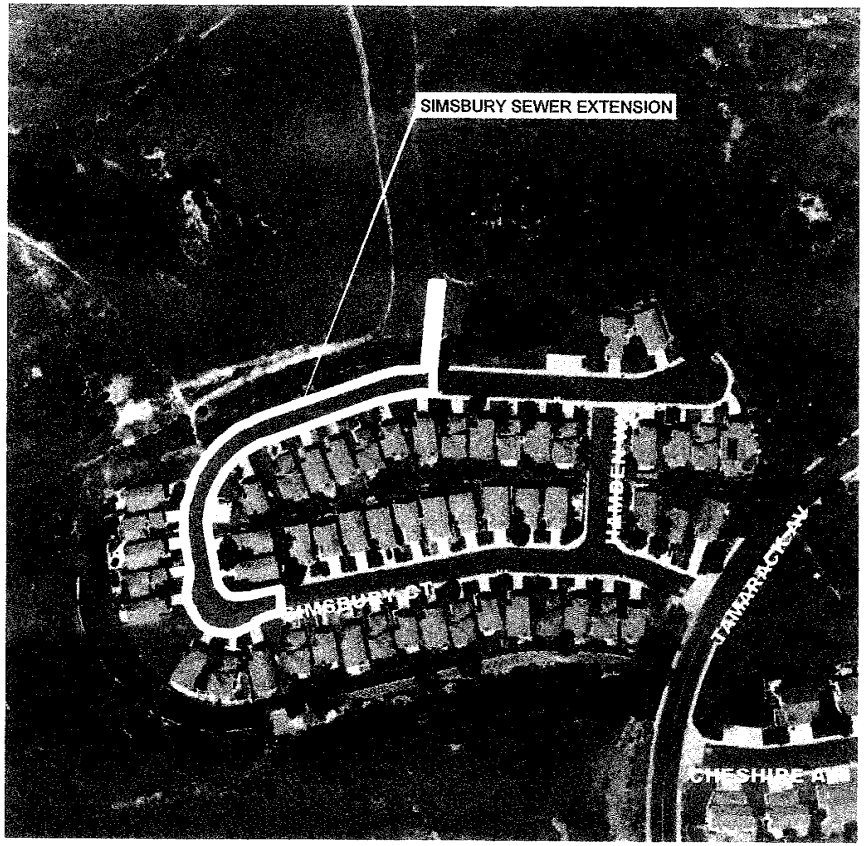
CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM - SIMSBURY SEWER EXTENSION

PROJECT NAME

5533
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

From the Simsbury Lift Station along Simsbury Court to the future Quarry Creek Development.

PROJECT DESCRIPTION:

Construct a gravity flow sewer pipeline and remove the Simsbury Lift Station

PROJECT NEED:

The Simsbury Sewer extension project allows for the removal of Simsbury Lift Station with the construction of a gravity pipeline connection to the future Quarry Creek Development.

FINANCING:

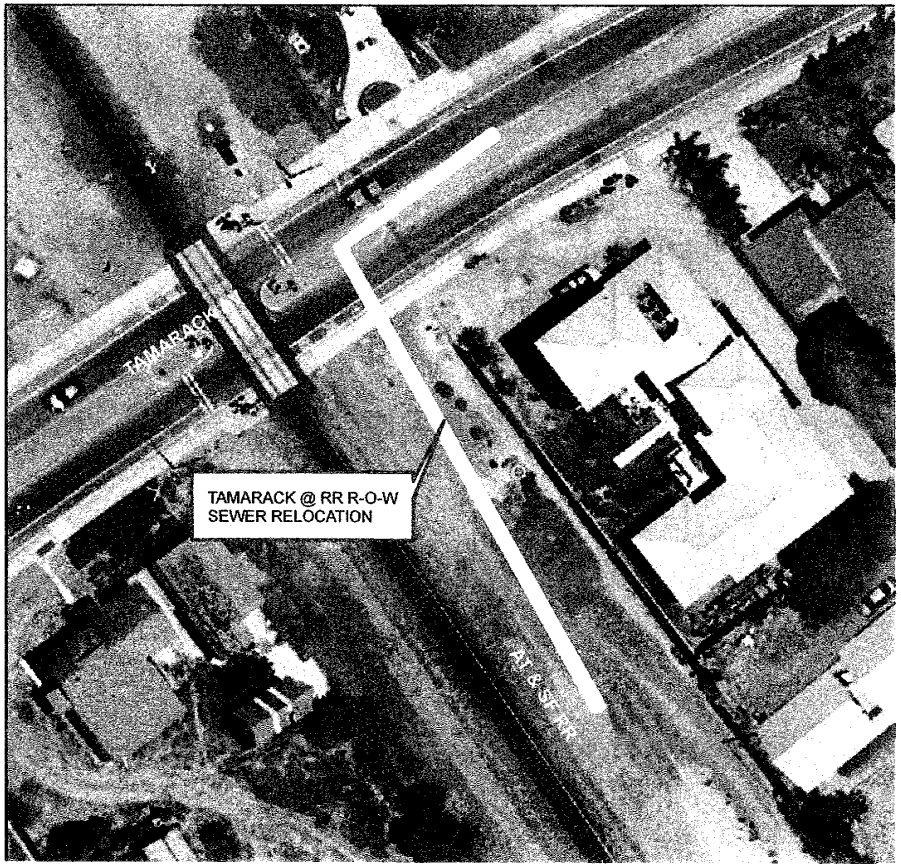
Purpose	Estimated Cost	Funding Source
Environmental	$ 10,000	Sewer Replacement
Design	$ 22,000	Sewer Replacement
Construction	$ 129,000	Sewer Replacement
Total Cost =	**$ 161,000**	

CAPITAL PROJECT DESCRIPTION

5524
PROJECT NO.

SEWER COLLECTION SYSTEM – TAMARACK SEWER RELOCATION AT RAILROAD RIGHT OF WAY
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Tamarack Avenue at the railroad tracks.

PROJECT DESCRIPTION:

Install approximately 150 feet of Cured-in-Place Pipeline (CIPP) in the gravity sewer pipeline which crosses under the RR tracks at Tamarack Ave and approximately 250 feet of CIPP in a pipeline in a nearby, upstream easement between Chinquapin Ave. and Hibiscus Circle.

PROJECT NEED:

City staff discovered the deteriorated 10 inch diameter section of vitrified clay and iron pipeline during routine CCTV inspection. The installation of CIPP will re-establish structural integrity and reliable function of both pipeline segments.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$ 16,000	Sewer Replacement
Construction	$ 236,000	Sewer Replacement
Total Cost =	**$252,000**	

CAPITAL PROJECT DESCRIPTION

SEWER COLLECTION SYSTEM – TERRAMAR SEWER REPLACEMENT (EL ARBOL DR. AND LOS ROBLES DR.)

PROJECT NAME

5534
PROJECT NO.

PROJECT LOCATION MAP:

PROJECT LOCATION:

The pipelines are located in El Arbol Dr. and Los Robles Dr.. This residential sewer collection basin is generally in the vicinity of and near the intersection of Cannon Rd and Carlsbad Blvd.

PROJECT DESCRIPTION:

Replace or rehabilitate in place the existing 6-inch and 8-inch sewer pipeline collection system and improve existing lateral connection points.

PROJECT NEED:

The existing system has been inspected and found to have significant operating issues including defective pipe sections and root intrusion causing continuous maintenance issues as well as increasing risk of a sewer blockage and spill.

FINANCING:

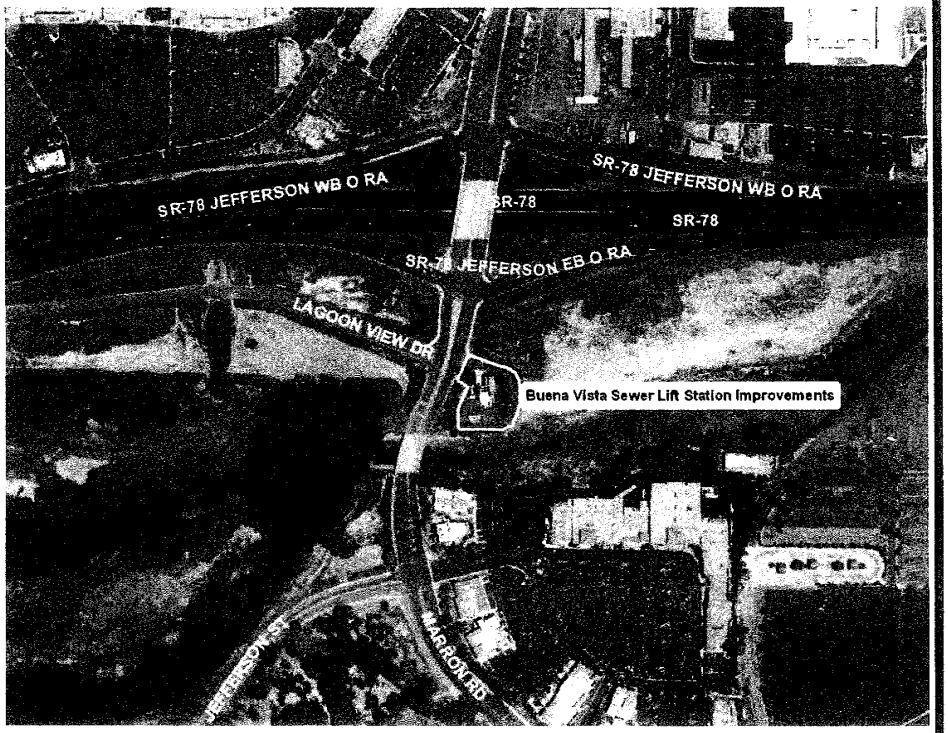
Purpose	Estimated Cost	Funding Source
Environmental	$ 25,000	Sewer Replacement
Design	$ 155,000	Sewer Replacement
Construction	$1,070,000	Sewer Replacement
Total Cost =	**$1,250,000**	

CAPITAL PROJECT DESCRIPTION

5535
PROJECT NO.

SEWER COLLECTION SYSTEM – VISTA/CARLSBAD INTERCEPTOR SEWER BUENA VISTA LIFT STATION IMPROVEMENTS
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Buena Vista Lift Station located near the intersection of SR 78 and Jefferson Street along the Vista/Carlsbad Interceptor sewer system.

PROJECT DESCRIPTION:

The sewer master plan has identified the need to increase the pumping capacity of the existing Buena Vista Lift Station to convey the utlimate projected flows of the basin. The first step in the project will be to perform a hydraulic study of the lift station and perform a condition assessment, define modifications needed to increase pumping capacity and identify improvements needed to improve the safety and reliability of the lift station. The recommendations and cost estimates identified in the study will be used to better define CIP budget estimates in subsequent years. All project costs will be shared with the City of Vista.

PROJECT NEED:

The existing lift station does not have adequate pumping capacity to meet ultimate flow projections for the sewer basin, which includes flow from the City's of Vista and Carlsbad. The project will also identify and incorporate needed safety and reliability upgrades.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$100,000	Sewer Replacement
Environmental	$50,000	Sewer Replacement
Design	$175,000	Sewer Replacement
Construction	$750,000	Sewer Replacement
Total Cost =	**$1,075,000***	

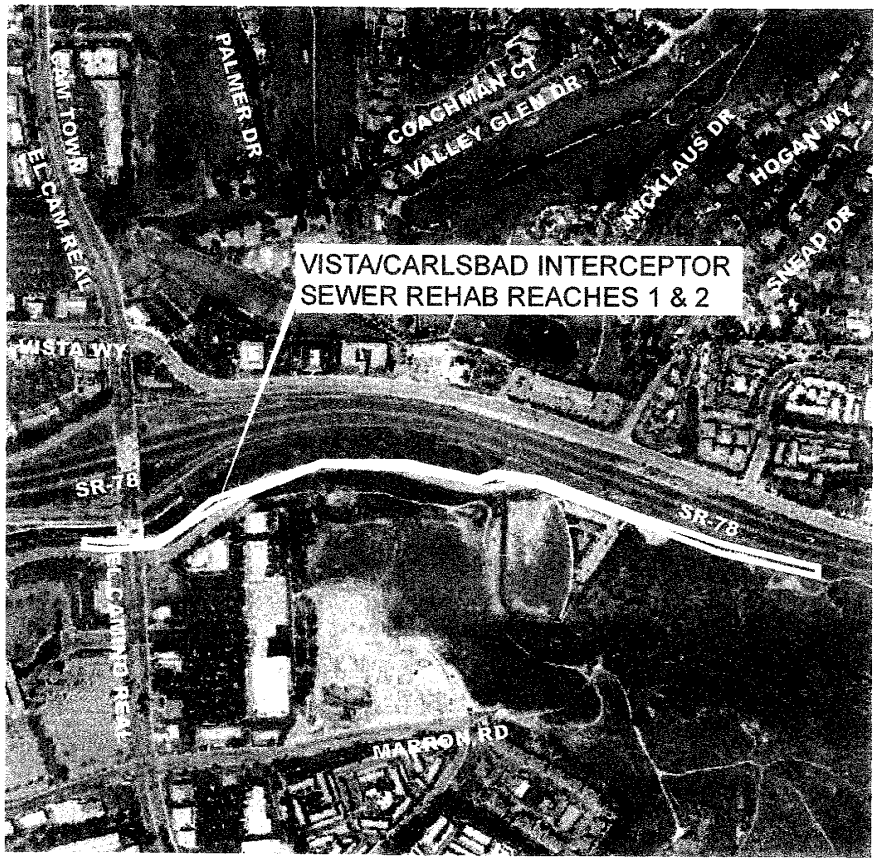
Includes Vista's share which is 89.6% of the costs.
Carlsbad's share is 10.4% or $111,800 based on the current estimate.

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

SEWER COLLECTION SYSTEM - VISTA/CARLSBAD INTERCEPTOR SEWER REHABILITATION REACHES (VC1 & VC2)
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Just south of State Route 78 and east of El Camino Real.

PROJECT DESCRIPTION:

Rehabilitate the existing interceptor sewer pipeline with cured-in-place pipeline liner. Pipeline sizes are between 36-inch and 42-inch diameter and includes approximately 4,900 lineal feet of pipeline.

PROJECT NEED:

The pipeline material is ductile iron and needs to be lined to prevent interior corrosion and extend the useful life of the pipeline. The City of Carlsbad and City of Vista share ownership of the pipeline and will share cost of the rehabilitation based on percentage ownership. Vista will be the lead agency on the project and the CIP funding budgeted is for Carlsbad's portion of the project cost only.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 5,000	Sewer Replacement
Design	$ 15,000	Sewer Replacement
Construction	$121,000	Sewer Replacement
Total Cost =	**$141,000**	

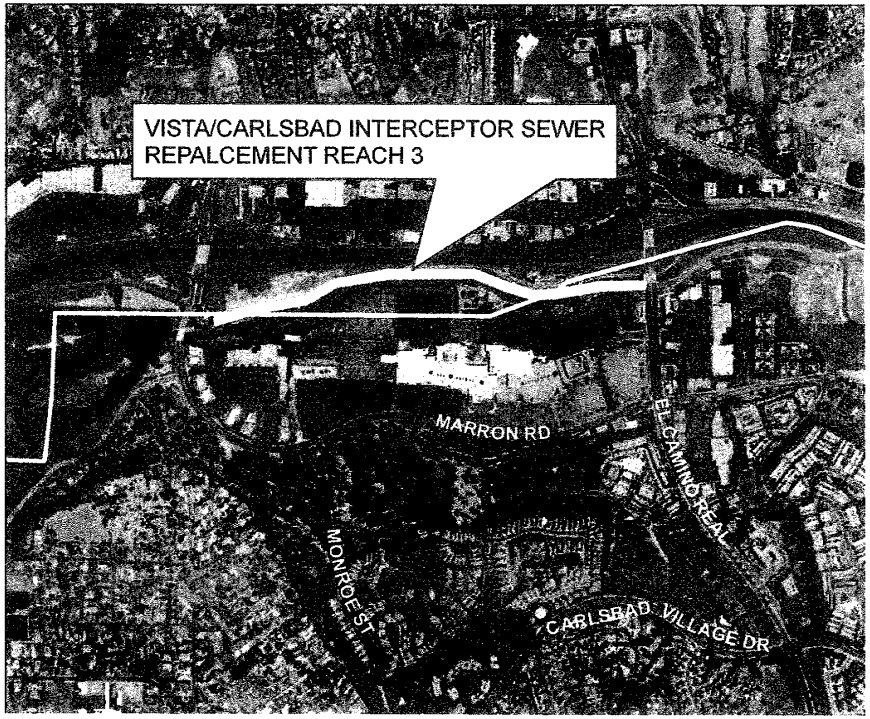
CAPITAL PROJECT DESCRIPTION

3950
PROJECT NO.

SEWER COLLECTION SYSTEM – VISTA/CARLSBAD INTERCEPTOR SEWER REPLACEMENT REACH (VC3)

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Reach 3 of the Vista/Carlsbad Interceptor Sewer located south of Highway 78 from Jefferson Street to El Camino Real.

PROJECT DESCRIPTION:

Reach VC3 of the Vista/Carlsbad Interceptor Sewer is a 36 inch diameter ductile iron pipe that has been identified in the current master plan as having inadequate capacity to convey the ultimate wastewater flow in the sewerage basin. The existing pipeline needs to be replaced with a larger pipe or a parallel pipeline needs to be added to convey the future wet weather flows for this basin.

Carlsbad shares the total cost of the project with the City of Vista as a percentage of capacity. Carlsbad has been identified as the lead agency for this project.

PROJECT NEED:

The project is needed to provide sufficient capacity to convey the ultimate wastewater flows and to reduce ground water infiltration and the potential of a pipeline failure and the associated sewage spill..

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$596,200	Sewer Connection
Construction	$2,092,000	Sewer Connection
Total Cost =	**$2,688,200** *	

*Includes Vista's share which is currently 89.6% of the costs.

Carlsbad's share is 10.4% or $279,573 based on the current estimate.

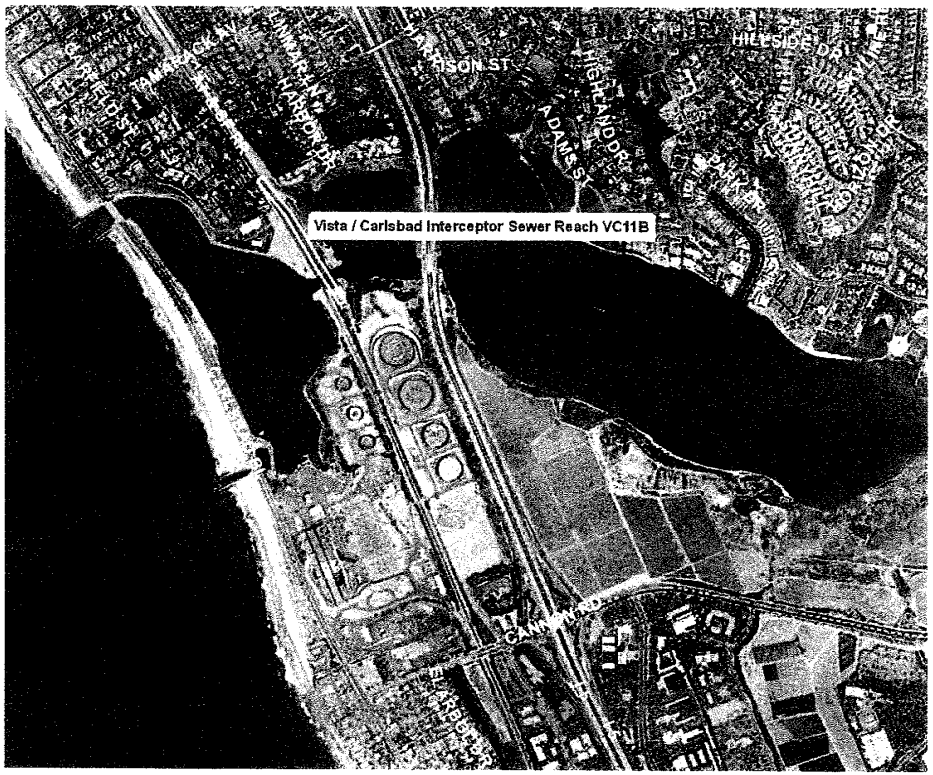
CAPITAL PROJECT DESCRIPTION

3886
PROJECT NO.

SEWER COLLECTION SYSTEM - VISTA/CARLSBAD INTERCEPTOR SEWER AND LAGOON BRIDGE REPLACEMENT (VC11B)

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Along NCTD railroad right-of-way from Olive Avenue south across Agua Hedionda Lagoon to the Agua Hedionda Lift Station.

PROJECT DESCRIPTION:

Replace existing Vista/Carlsbad Interceptor Sewer Reach VC11B and bridge (wood trestle) with 800 feet of 54 inch diameter pipeline and a new bridge. Carlsbad shares the total cost of the project with the City of Vista as a percentage of capacity.

PROJECT NEED:

Required to handle build out flows.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$253,000	Sewer Connection
Design	$1,100,000	Sewer Connection
Construction	$5,577,000	Sewer Connection
Total Cost =	**$6,930,000 ***	

*Includes Vista's share which is currently 69.1% of the costs.

Carlsbad's share is 30.9% or $2,141,370 based on the current estimate.

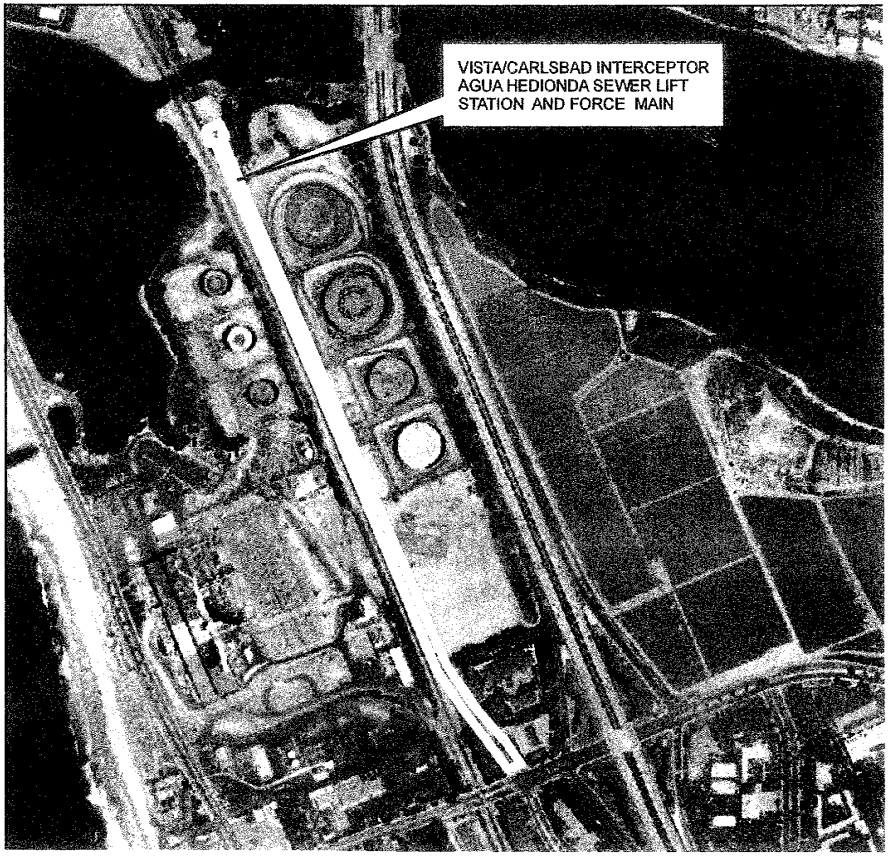
CAPITAL PROJECT DESCRIPTION

3492
PROJECT NO.

SEWER COLLECTION SYSTEM – VISTA/CARLSBAD INTERCEPTOR
AGUA HEDIONDA SEWER LIFT STATION AND FORCE MAIN (VC 12 & VC13)

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

On the south shore of Agua Hedionda Lagoon adjacent to the east side of the railroad tracks.

PROJECT DESCRIPTION:

Upgrade existing pump station to increase capacity for buildout conditions. Replace existing pumps with larger capacity pumps and associated appurtenances. Carlsbad shares the total cost of the project with the City of Vista as a percentage of capacity.

PROJECT NEED:

Required to handle sewage flows for buildout population.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$750,000	Sewer Connection Fee
Design	$850,000	Sewer Connection Fee
Property Acquisition	$850,000	Sewer Connection Fee
Construction	$26,750,000	Sewer Connection Fee
Total Cost =	**$29,200,000 ***	

*Includes Vista's share which is 69.1% of the costs.

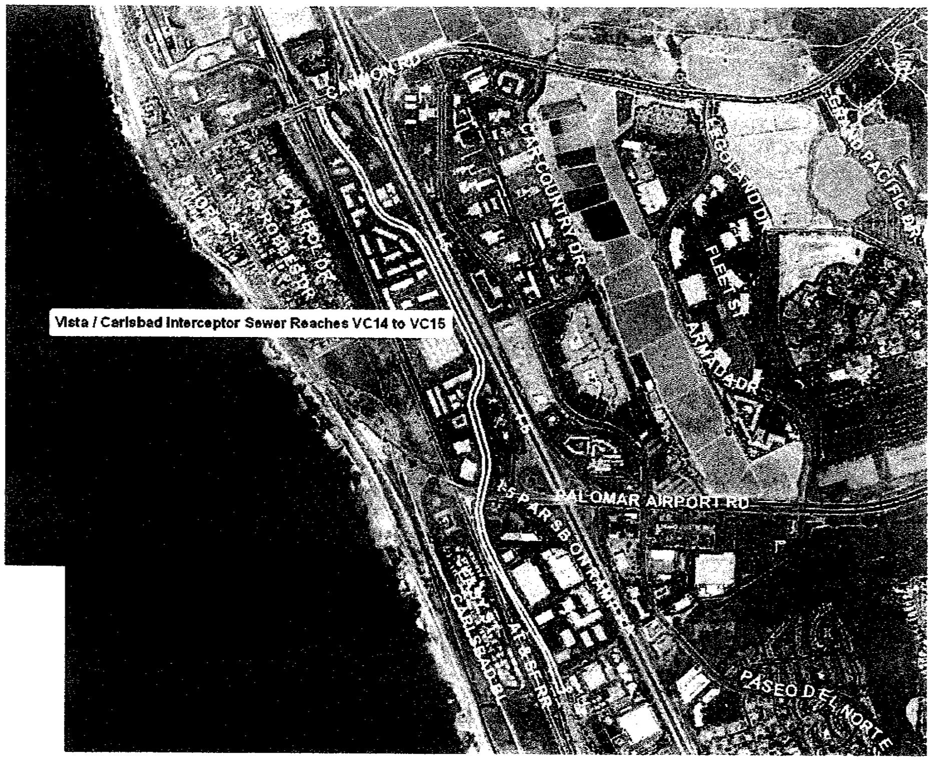
Carlsbad's share is 30.9% or $9,022,800 based on the current estimate.

CAPITAL PROJECT DESCRIPTION

3949
PROJECT NO.

SEWER COLLECTION SYSTEM - VISTA/CARLSBAD INTERCEPTOR RELIEF SEWER REACHES (VC14 & VC15)
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

From Cannon Road south to the Encina Water Pollution Control Facility.

PROJECT DESCRIPTION:

Construct approximately 7800 feet of 54 inch diameter relief sewer from Cannon Road to the Encina Water Pollution Control Facility and rehabilitate manholes on the existing interceptor. Carlsbad shares the total cost of the project with the City of Vista as a percentage of capacity.

PROJECT NEED:

Required to handle buildout flows.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$100,000	Sewer Connection
Environmental	$51,000	Sewer Connection
Design	$1,650,000	Sewer Connection
Construction	$16,799,000	Sewer Connection
Total Cost =	**$18,600,000** *	

*Includes Vista's share which is currently 56.1% of the costs.

Carlsbad's share is 43.9% or $8,165,400 based on the current estimate.

VC14VC15

WATER PROJECTS

WATER DISTRIBUTION SYSTEM PROJECTS

FUNDING MATRIX FOR WATER DISTRIBUTION SYSTEM PROJECTS

PROJ NO.	FUND NO.	PROJECT TITLE	FUNDING SOURCE	TOTAL BUDGET	PRIOR APPROP.	FUTURE YEAR BUDGET AMOUNTS						
						YEAR 1 2014-2015	YEAR 2 2015-2016	YEAR 3 2016-2017	YEAR 4 2017-2018	YEAR 5 2018-2019	YEAR 6-10 2020-2024	YEAR 11-15 2025-2029
		AVIARA PARKWAY AND PLUM TREE WATERLINE	WATER REPL	815,000	0		815,000					
5211	52111	BUENA VISTA PUMP STATION AND FOREBAY REMOVAL	WATER REPL	150,000	0	150,000						
		CARLSBAD BOULEVARD SOUTH OF AVENIDA ENCINAS	WATER REPL	950,000	0		280,000	670,000				
5007	50071	CATHODIC PROTECTION PROGRAM	WATER REPL	1,246,700	1,246,700							
5013	50131	COLLEGE BOULEVARD - CANNON ROAD TO BADGER LANE 490 ZONE (Reimb)	WATER CONN	1,060,000	1,060,000							
5012	50121	COLLEGE BOULEVARD - CANNON TO BADGER LANE 375 ZONE	WATER CONN	1,090,000	0	1,090,000						
5033	50331	CRESTVIEW DRIVE TRANSMISSION MAIN	WATER REPL	240,000	0		240,000					
5038	50381	DESALINATED SEAWATER TRANSMISSION MAIN	WATER CONN	473,000	45,000	45,000	383,000					
5038	50382	DESALINATED SEAWATER TRANSMISSION MAIN	WATER REPL	1,027,000	100,000	80,000	847,000					
5039	50391	E TANK DECOMMISSION	WATER REPL	150,000	150,000							
5034	50341	EL FUERTE AND CORINTIA STREET PRESSURE REDUCING STATION	WATER REPL	500,000	500,000							
5040	50401	ELLERY PUMP STATION DECOMMISSION	WATER REPL	250,000	120,000	130,000						
5212	52121	FIRE FLOW SYSTEM IMPROVEMENTS	WATER REPL	2,449,000	0	720,000	720,000				1,009,000	
5025	50251	HYDROELECTRIC GENERATOR AT MAERKLE	WATER REPL	2,000,000	2,000,000							
		HYDROELECTRIC GENERATOR AT PAR AND WHITE SANDS	WATER REPL	2,160,000	0		85,000	275,000	1,800,000			
5029	50291	KELLY RANCH DOMESTIC WATER PRESSURE REDUCTION	WATER REPL	560,000	560,000							
		LA COSTA HIGH RESERVOIR INLET PIPELINE	WATER REPL	2,150,000	0		250,000	1,900,000				
3821	38211	LAKE CALAVERA RESERVOIR IMPROVEMENTS	WATER REPL	6,396,910	6,396,910							
5035	50351	LIMITED ACCESS PIPELINE RELOCATION PROGRAM	WATER REPL	1,940,000	970,000	485,000	485,000					
5009	50091	MAERKLE FACILITY IMPROVEMENTS	WATER REPL	2,135,200	2,135,200							
5004	50042	MAERKLE PUMP STATION IMPROVEMENTS	WATER CONN	1,955,200	170,000	40,000	160,000	1,585,200				
5036	50361	MAERKLE RESERVOIR FLOATING COVER REPLACEMENT	WATER REPL	10,000,000	270,000		9,730,000					
5001	50011	MAERKLE RESERVOIR TRANSMISSION MAIN	WATER REPL	6,330,000	6,330,000							
3904	39041	MISCELLANEOUS PIPELINE REPLACEMENTS	WATER REPL	1,433,000	1,433,000							
3531	35311	OCEANSIDE INTERTIE UPGRADE	WATER REPL	115,000	0		115,000					
5030	50301	PARK DRIVE WATER LINE AND STREET IMPROVEMENTS	WATER REPL	1,092,000	1,092,000							
		POINSETTIA LANE (SKIMMER COURT TO CASSIA ROAD)	WATER CONN	763,800	0						763,800	
5020	50201	PRESSURE REDUCING STATION REHABILITATION/REPLACEMENT	WATER REPL	1,102,000	1,102,000							
		RANCHO CARLSBAD GROUNDWATER SUPPLY	WATER CONN	1,750,000	0						325,000	1,425,000
		RANCHO CARLSBAD GROUNDWATER SUPPLY	WATER REPL	1,750,000	0						325,000	1,425,000
5024	50241	RESERVOIR REPAIR /MAINTENANCE PROGRAM	WATER REPL	6,000,000	4,000,000		150,000				1,850,000	
5037	50371	ROBERTSON RANCH WATER TRANSMISSION MAIN	WATER REPL	1,200,000	1,200,000							
5031	50311	SANTA FE II RESERVOIR SITE IMPROVEMENTS (1)	WATER REPL	645,000	645,000							
5213	52131	SAN LUIS REY MISSION BASIN GROUNDWATER SUPPLY	WATER CONN	8,527,500	0	27,500						8,500,000
5214	52141	SAN LUIS REY MISSION BASIN GROUNDWATER SUPPLY	WATER REPL	8,527,500	0	27,500						8,500,000
		SANTA FE II INLET PIPELINE	WATER REPL	2,838,000	0		470,000	2,368,000				
5008	50081	TRI-AGENCY WATER TRANSMISSION PIPELINES	WATER REPL	6,455,000	1,355,000	5,100,000						
5016	50161	WATER MASTER PLAN UPDATE	WATER CONN	700,000	700,000	-						
3664	36641	WATER SYSTEM INTERTIE CONNECTION	WATER REPL	405,000	0		405,000					
5019	50191	WATER VALVE REPLACEMENT PROGRAM	WATER REPL	1,950,000	450,000	100,000	100,000	100,000	100,000	100,000	500,000	500,000

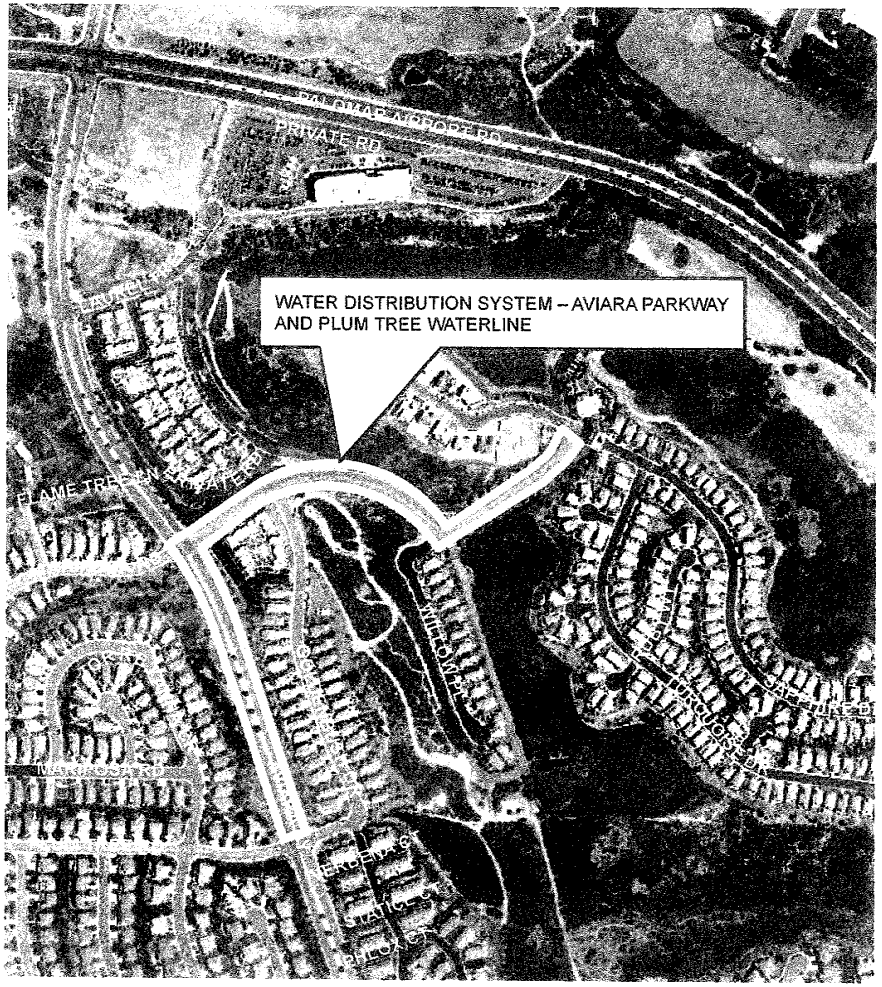
(1) = Project is in service and/or substantially complete and a Capital Project Description page is not included in the Technical Appendix.

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

WATER DISTRIBUTION SYSTEM – AVIARA PARKWAY AND PLUM TREE WATERLINE
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Aviara Parkway at Plum Tree, north to Mariposa Street, then east to Sapphire Drive.

PROJECT DESCRIPTION:

Construct 3,100 feet of 8 inch diameter watermain.

PROJECT NEED:

Provide redundant supply to residential development.

FINANCING:

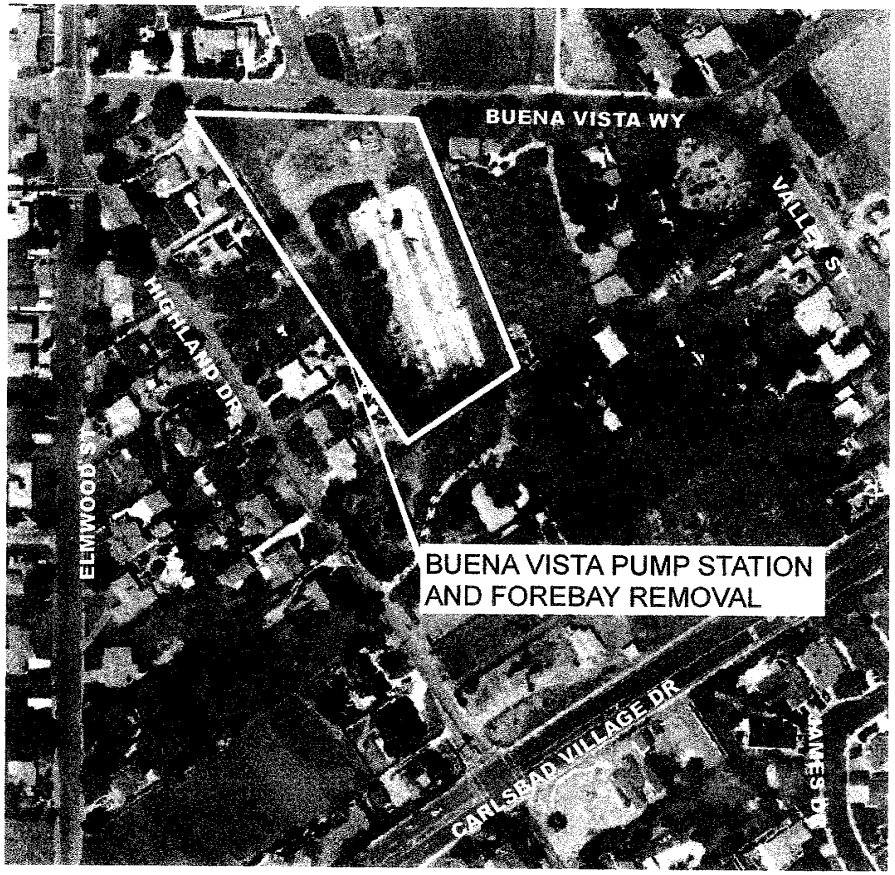
Purpose	Estimated Cost	Funding Source
Environmental	$20,000	Water Replacement
Design	$115,000	Water Replacement
Construction	$680,000	Water Replacement
Total Cost =	**$815,000**	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - BUENA VISTA PUMP STATION AND FOREBAY REMOVAL
PROJECT NAME

5211
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Near the Intersection of Buena Vista Way and Highland Drive

PROJECT DESCRIPTION:

Abandon and remove the Buena Vista Pump Station and Forebay

PROJECT NEED:

This station was designed to be the emergency supply to the 330 zone. The 330 zone now can be supplied by multiple ways so the pump station is rarely operated.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$ 30,000	Water Replacement
Construction	$120,000	Water Replacement
Total Cost =	**$150,000**	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – CARLSBAD BOULEVARD SOUTH OF AVENIDA ENCINAS

PROJECT NAME

NONE

PROJECT NO.

PROJECT LOCATION MAP:

PROJECT LOCATION:

Carlsbad Boulevard from Avenida Encinas south to District boundary.

PROJECT DESCRIPTION:

Construct 4,900 feet of 12 inch diameter water main.

PROJECT NEED:

Provides a two-way emergency connection with San Diego Water District 240 Zone. Can also supply water to 318 Zone west of I-5. Adds system reliability.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$30,000	Water Replacement
Design	$250,000	Water Replacement
Construction	$670,000	Water Replacement
Total Cost =	**$950,000**	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – CATHODIC PROTECTION PROGRAM

PROJECT NAME

5007

PROJECT NO.

PROJECT LOCATION MAP:

VARIOUS LOCATIONS THROUGHOUT THE DISTRICT

PROJECT LOCATION:

Various locations throughout the Carlsbad Municipal Water District service area.

PROJECT DESCRIPTION:

Design and construct corrosion control improvements for existing domestic water pipelines, recycled water pipelines, and reservoir associated pipelines.

PROJECT NEED:

A Cathodic Protection Inspection and Testing Report completed in 2006 identified existing metallic pipelines with no cathodic protection and existing cathodic protection systems were not operating. Corrosion is a major cause of pipeline failure. Mitigating the corrosion process extends pipeline service life, reduces pipeline failures and saves future maintenance and replacement costs.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$143,850	Water Replacement
Construction	$1,102,850	Water Replacement
Total Cost =	**$1,246,700**	

CAPITAL PROJECT DESCRIPTION

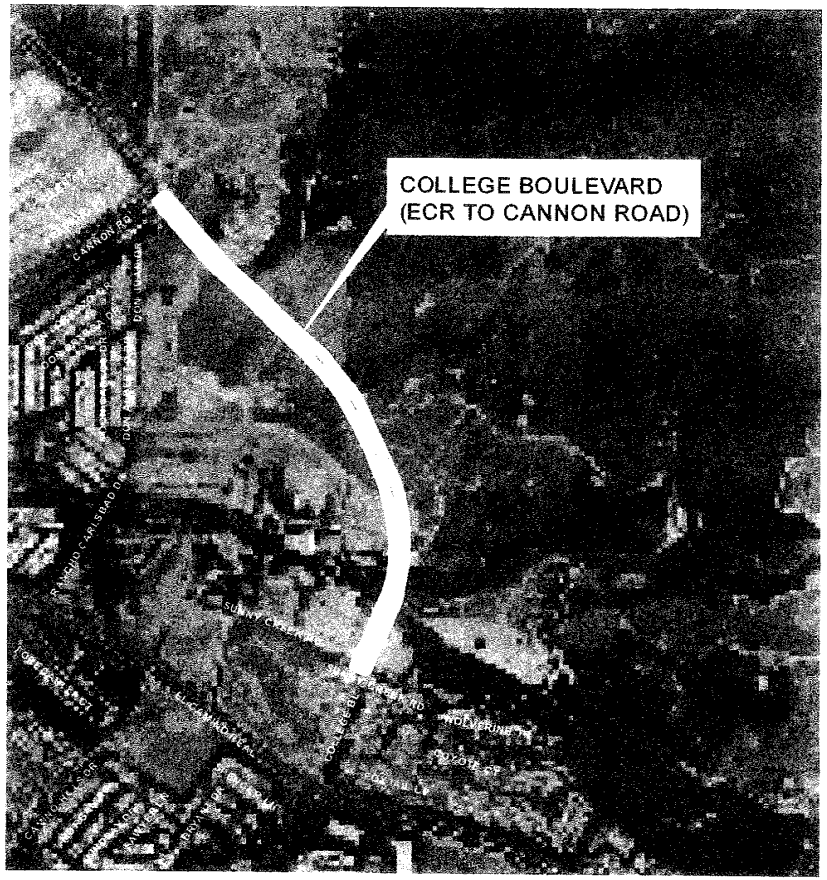
WATER DISTRIBUTION SYSTEM - COLLEGE BOULEVARD (CANNON ROAD TO "A" ST.)

PROJECT NAME

5013

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

College Boulevard from Cannon Road to "A" Street.

PROJECT DESCRIPTION:

Install 3,000 feet of 16 inch diameter water main. (In 490 H.G. Zone)

PROJECT NEED:

To meet the future demands of the area from LFMP Zones 14 and 15. Project timing is dependent of future development and the associated construction of College Boulevard.

FINANCING:

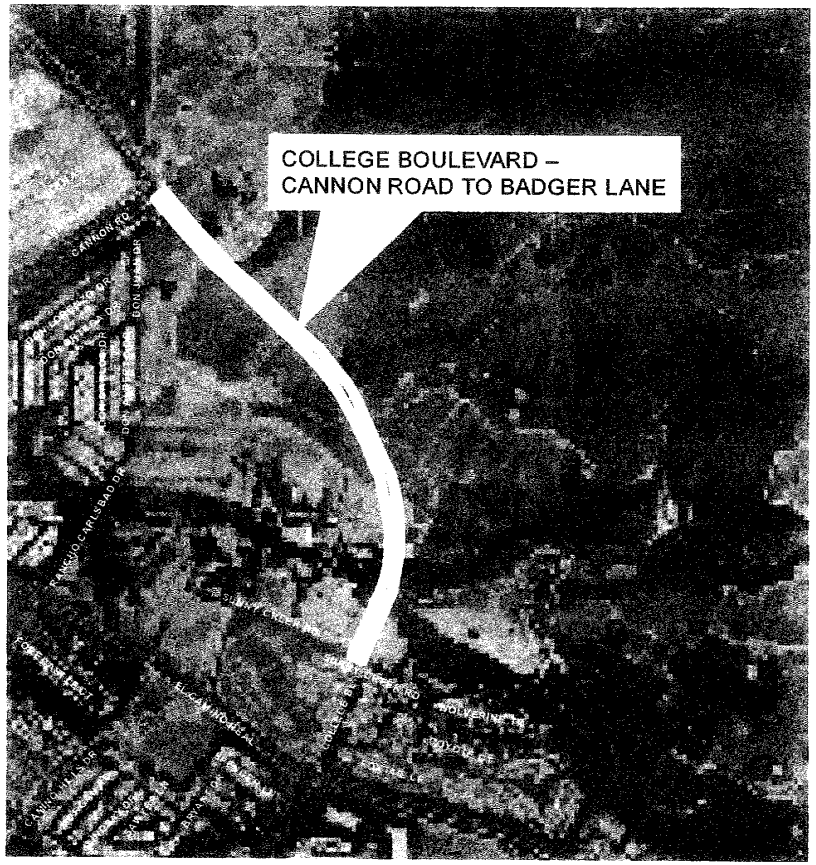
Purpose	Estimated Cost	Funding Source
Design	$140,000	Water Connection
Construction	$920,000	Water Connection
Total Cost =	**$1,060,000**	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – COLLEGE BOULEVARD – CANNON ROAD TO BADGER LANE
PROJECT NAME

5012
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

College Boulevard from Cannon Road south to Badger Lane.

PROJECT DESCRIPTION:

Construct 4,130 feet of 12 inch diameter water main.

PROJECT NEED:

Provides water supply for new development and creates 375 Zone loop east of El Camino Real. Project timing is based on development and the associated construction of College Boulevard. Developers along College Boulevard to fund a portion of the project.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$120,000	Water Connection
Construction	$970,000	Water Connection
Total Cost =	**$1,090,000**	

CAPITAL PROJECT DESCRIPTION

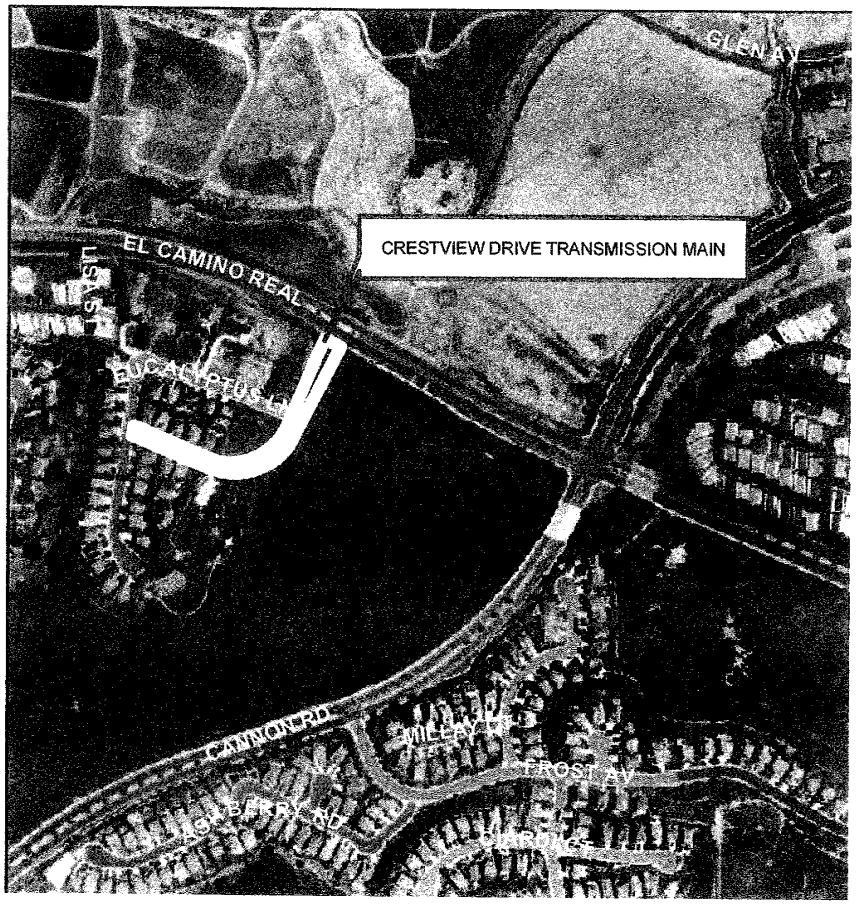
WATER DISTRIBUTION SYSTEM – CRESTVIEW DRIVE TRANSMISSION MAIN

PROJECT NAME

5033

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Crestview Drive west of El Camino Real.

PROJECT DESCRIPTION:

Construct 600 feet of 8 inch diameter pipeline.

PROJECT NEED:

To provide a redundant water supply to existing residential area.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$40,000	Water Replacement
Construction	$200,000	Water Replacement
Total Cost =	**$240,000**	

CAPITAL PROJECT DESCRIPTION

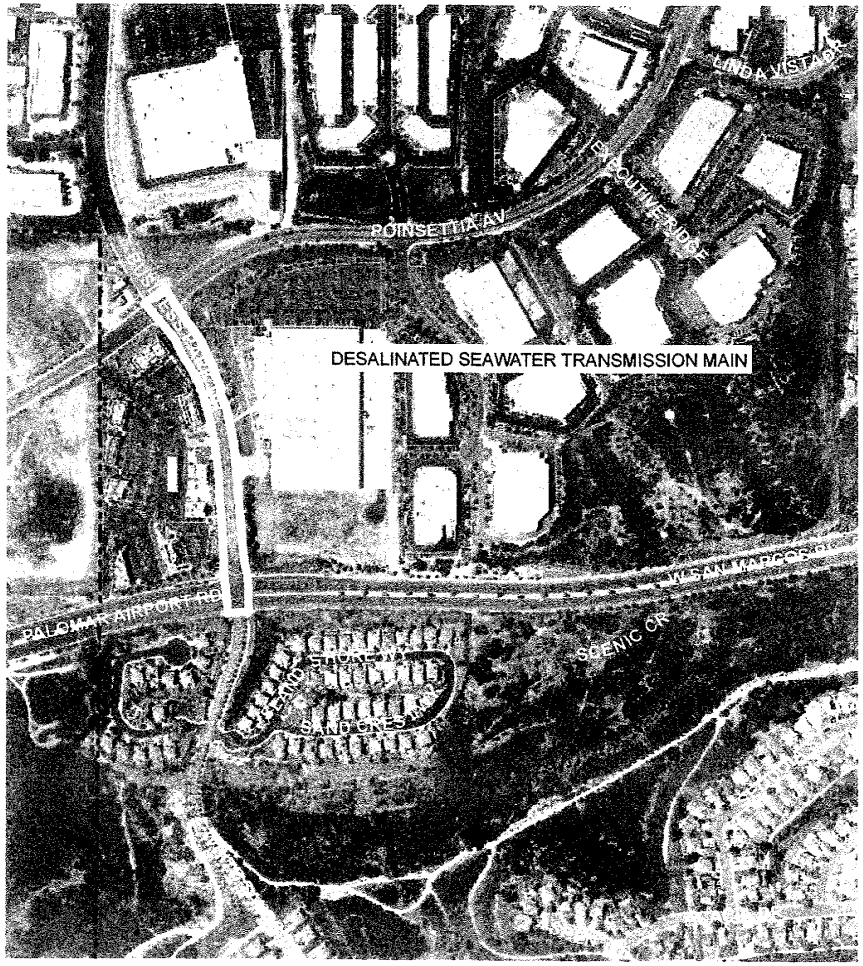
WATER DISTRIBUTION SYSTEM - DESALINATED SEAWATER TRANSMISSION MAIN

PROJECT NAME

5038

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

From the proposed SDCWA'S pipeline in Faraday Avenue south along Business Park Drive to San Marcos Blvd.

PROJECT DESCRIPTION:

Install 1,100 lineal feet of new 18-inch pipe and a Flow Control Facility for SDCWA Connection No. 5.

PROJECT NEED:

This pipeline and flow control facility would provide for a direct delivery of desalinated seawater to the 700 zone. The desalinated water was factored into CMWD'S water supply mix per CMWD'S 2010 Urban Water Management plan and the 2012 Water Master Plan.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 20,000	Water Repl./Water Conn.
Design	$ 250,000	Water Repl./Water Conn.
Construction	$1,230,000	Water Repl./Water Conn.
Total Cost =	**$ 1,500,000**	**Water Repl./Water Conn.**

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - "E" TANK DECOMMISSION

PROJECT NAME

5039

PROJECT NO.

PROJECT LOCATION MAP:

PROJECT LOCATION:

"E" Tank Site is at the north end of The Crossings Road.

PROJECT DESCRIPTION:

Decommission then either remove or relocate steel tank from site.

PROJECT NEED:

Currently there are three tanks which supply the 255 zone. The elevations of the three tanks are all different making water operation difficult. The "E" Tank cannot be filled completely without over pressurizing the Elm and Skyline Tanks. E Tank would have to drain completely before water from Skyline Tank would enter the system. The 2012 Water Master Plan recommends removing E Tank because the storage is not required and separating Elm and Skyline into two zone to maintain water quality

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$ 5,000	Water Replacement
Design	$ 25,000	Water Replacement
Construction	$120,000	Water Replacement
Total Cost =	**$150,000**	

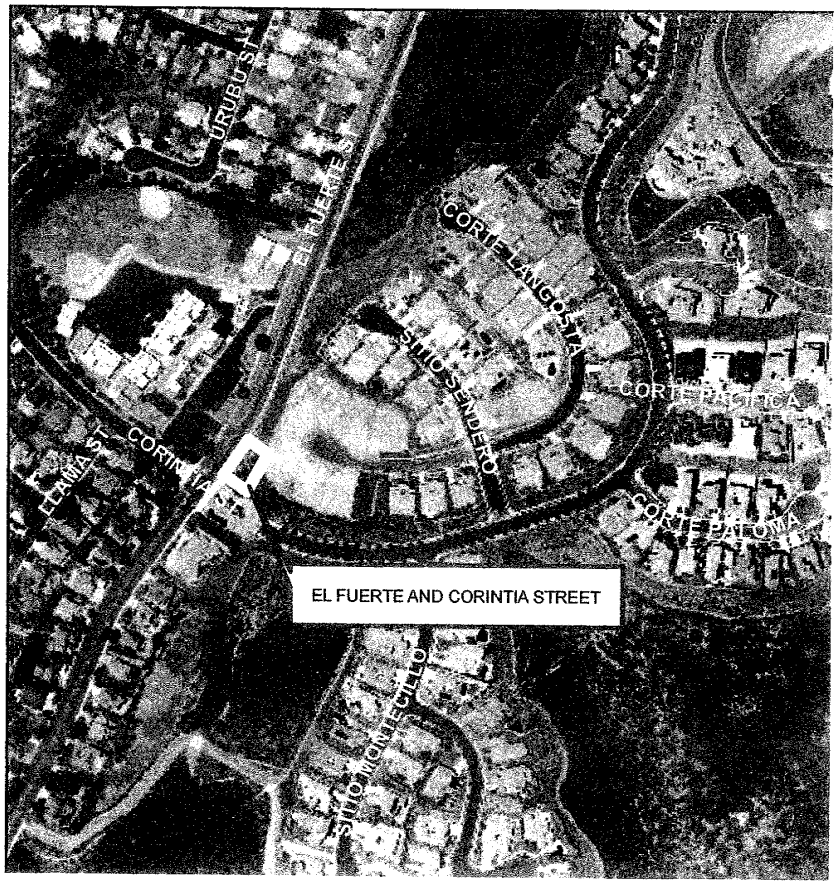
CAPITAL PROJECT DESCRIPTION

5034
PROJECT NO.

WATER DISTRIBUTION SYSTEM – EL FUERTE AND CORINTIA STREET PRESSURE REDUCING STATION

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Intersection of El Fuerte and Corintia Street.

PROJECT DESCRIPTION:

Construct Pressure Reducing Station.

PROJECT NEED:

Provide redundant water supply to 680,580 South and 510 Zones.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$20,000	Water Replacement
Design	$80,000	Water Replacement
Construction	$400,000	Water Replacement
Total Cost =	**$500,000**	

CAPITAL PROJECT DESCRIPTION

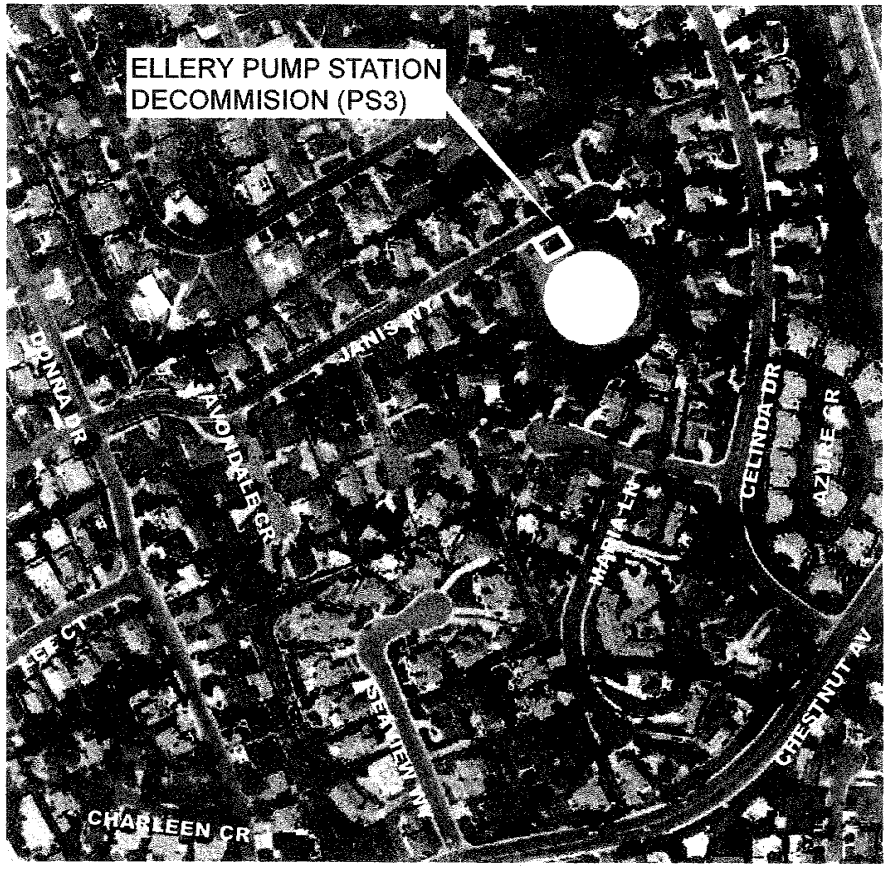
WATER DISTRIBUTION SYSTEM - ELLERY PUMP STATION DECOMMISION

PROJECT NAME

5040

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Janis Way adjacent to the Ellery Reservoir

PROJECT DESCRIPTION:

Abandon and remove the Ellery Pump Station. Construct facilities to accommodate portable pumps.

PROJECT NEED:

The site will be redesigned to accommodate a portable trailer mounted pump while maintaining the 330 Zone Relief Valve.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$ 107,000	Water Replacement
Construction	$ 143,000	Water Replacement
Total Cost =	**$ 250,000**	

CAPITAL PROJECT DESCRIPTION

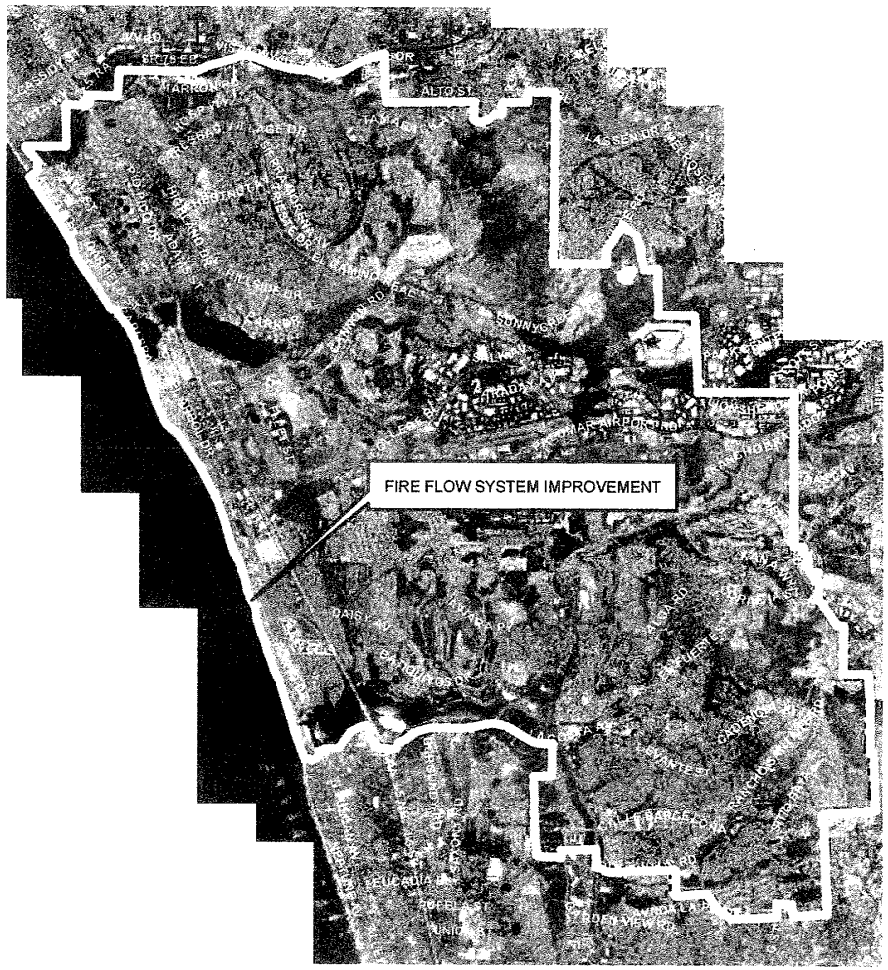
WATER DISTRIBUTION SYSTEM - FIRE FLOW SYSTEM IMPROVEMENTS

PROJECT NAME

5212

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

PROJECT DESCRIPTION:

Replace 10,400 lineal feet of existing 4-inch and 6-inch pipeline with larger pipes, construct new emergency pump station at Obelisco Place and re-pipe hydrants in the Calavera Hills area from the 580 to 446 Pressure Zone.

PROJECT NEED:

To improve the ability of the system to deliver water in accordance with fire flow requirements.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 79,000	Water Repl.
Design	$ 400,000	Water Repl.
Construction	$1,970,000	Water Repl.
Total Cost =	**$ 2,449,000**	**Water Repl.**

CAPITAL PROJECT DESCRIPTION

5025
PROJECT NO.

WATER DISTRIBUTION SYSTEM
HYDROELECTRIC GENERATOR AT MAERKLE
PROJECT NAME

PROJECT LOCATION MAP:

PROJECT LOCATION:

Adjacent to the 10 MG Maerkle Tank and the TAP #3 Pressure Reducing Station.

PROJECT DESCRIPTION:

A bypass pipeline at the TAP #3 Pressure Reducing Station will route high pressure water through a turbine pump generator to produce electricity. The effect of water passing through the turbine will be a reduction of water pressure to the required level and generating electricity.

PROJECT NEED:

Assist in complying with AB32 by reducing greenhouse gases and producing renewable energy by 2020.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$181,000	Water Replacement
Design	$201,000	Water Replacement
Construction	$1,618,000	Water Replacement
Total Cost =	**$2,000,000**	

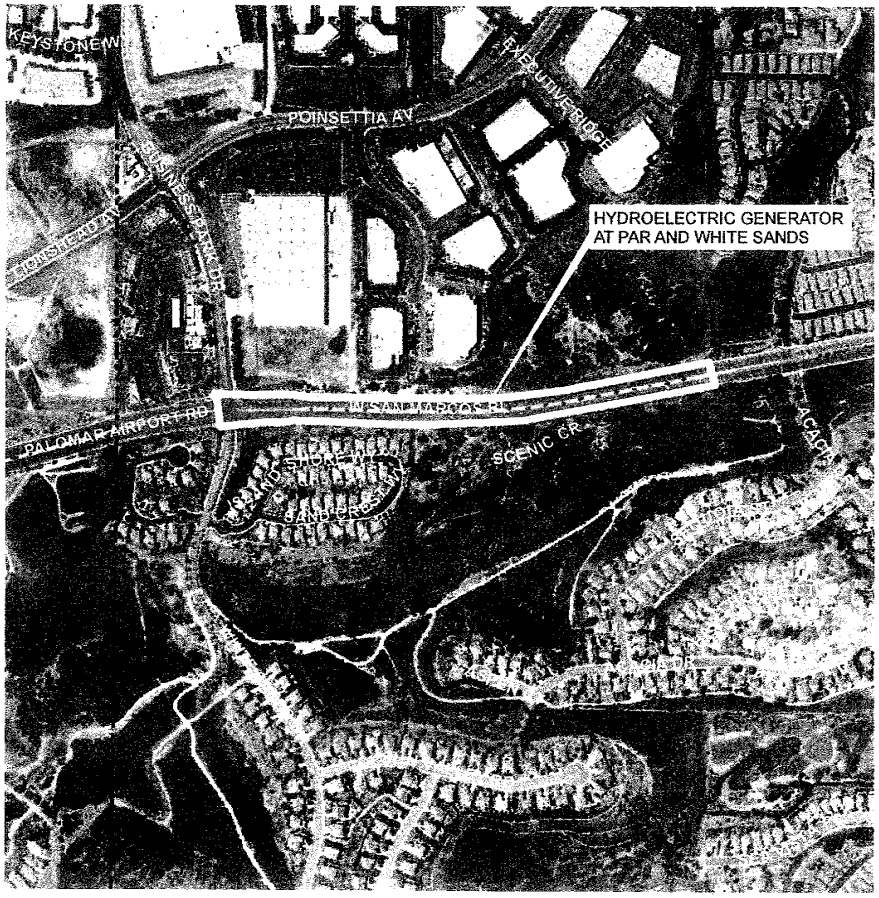
CAPITAL PROJECT DESCRIPTION

PROJECT NO.

WATER DISTRIBUTION SYSTEM
HYDROELECTRIC GENERATOR AT PAR AND WHITE SANDS

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

From SDCWA'S Connection No. 1 in Rancho Santa Fe west along San Marcos Blvd to Business Park Drive.

PROJECT DESCRIPTION:

Relocate SDCWA'S Connection No. 1 downstream near CMWD'S boundary and install a new hydroelectric generator. This project also includes upgrading a portion of the 30-inch transmission main to handle the higher pressure from the Aqueduct.

PROJECT NEED:

This hydroelectric facility would be able to utilize the higher pressure water from either SDCWA"S Connection No. 1 or the proposed SDCWA'S Connection No. 5 off the desalinated seawater pipeline.

FINANCING:

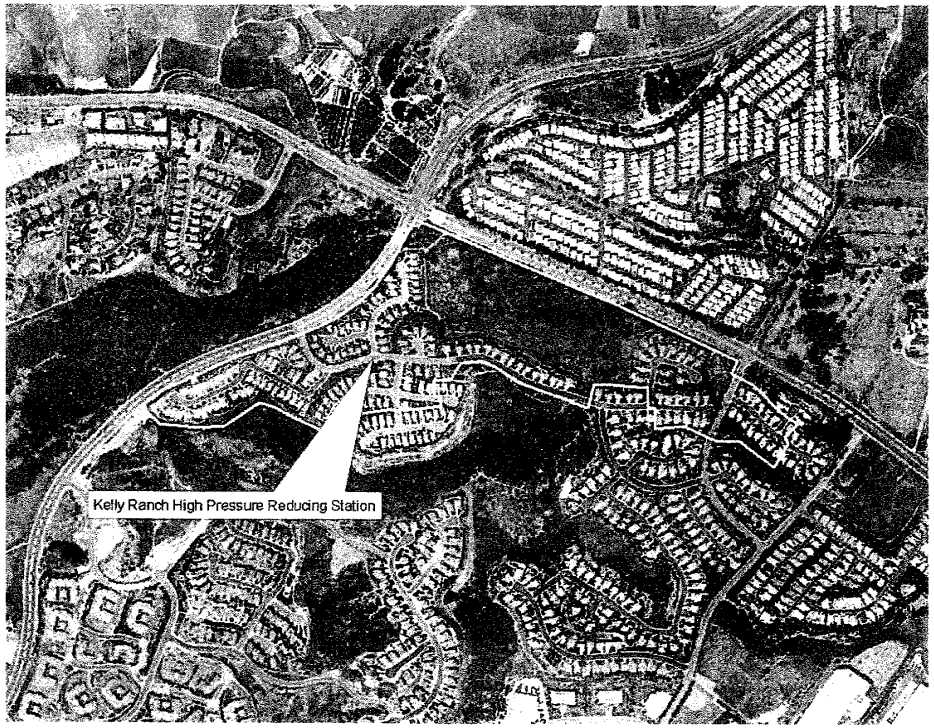
Purpose	Estimated Cost	Funding Source
Studies	$ 85,000	Water Repl.
Design	$ 275,000	Water Repl.
Construction	$ 1,800,000	Water Repl.
Total Cost =	**$ 2,160,000**	**Water Repl.**

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – KELLY RANCH DOMESTIC WATER PRESSURE REDUCTION
PROJECT NAME

5029
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Within Kelly Ranch Village "E" development.

PROJECT DESCRIPTION:

Property owners in the Kelly Ranch Village "E" development are experiencing water pressure beyond the 125 psi City of Carlsbad Engineering Standard. The project includes constructing a pressure reducing station within the city right-of-way and closing certain valves to decrease the pressure below the 125 psi standard.

PROJECT NEED:

The project is needed to prevent the failure or fittings and fixtures in the homes that are experiencing high pressure. City's Utility Department has received numerous complaints of high water pressure in the area and has indicated the high pressure has caused failures of the fittings in the homes experiencing high water pressure.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$60,000	Water Replacement
Construction	$500,000	Water Replacement
Total Cost =	**$560,000**	

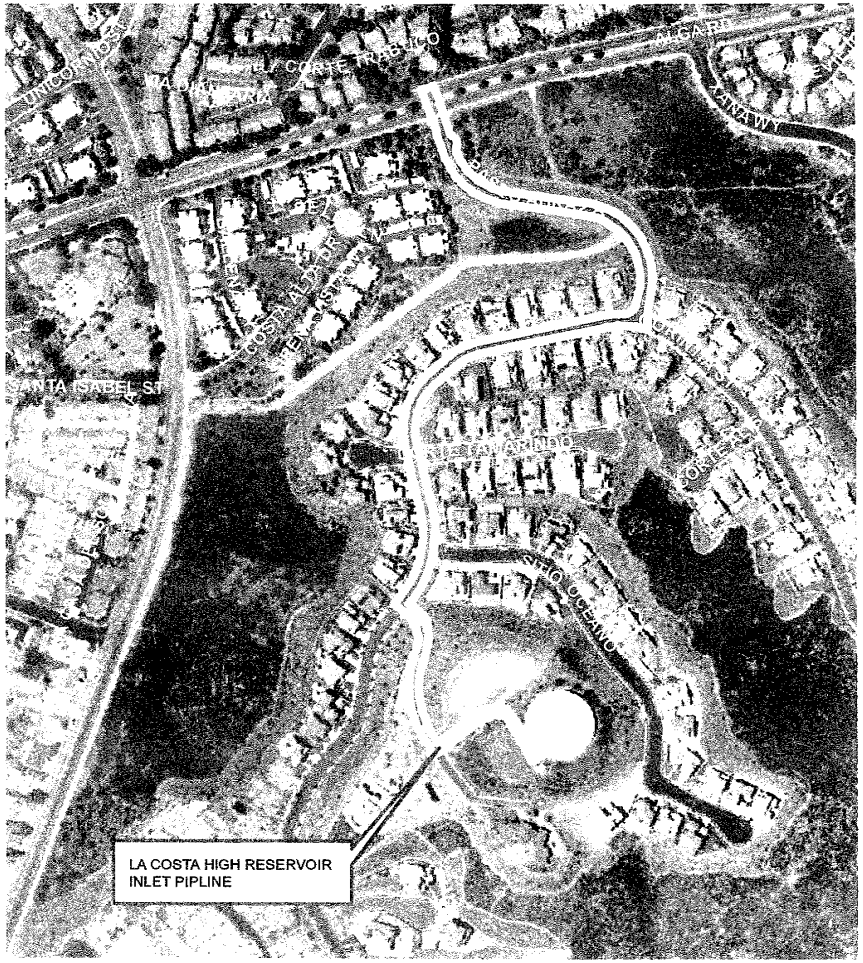
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - LA COSTA HIGH RESERVOIR INLET PIPLINE

PROJECT NAME

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

From Alga Road south along Paseo Abrazo and Corintia Street

PROJECT DESCRIPTION:

Install 3,200 lineal feet of new 20-inch pipe.

PROJECT NEED:

The La Costa High Reservoir is located along a major supply transmission main from the SDCWA'S Aqueduct. Since the reservoir utilizes a long common Inlet/Outlet pipeline there are times when there is no turnover of water within the reservoir. Currently Operations must cut back on water supply from SDCWA in order to flush the reservoir to maintain water quality. The construction of a parallel pipeline for inlet to the reservoir and utilizing the existing pipeline for outlet pipe would maintain water quality without decreasing water storage. This project is recommended in the 2012 Water Master Plan.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$ 25,000	Water Repl.
Design	$ 225,000	Water Repl.
Construction	$ 1,900,000	Water Repl.
Total Cost =	**$ 2,150,000**	**Water Repl.**

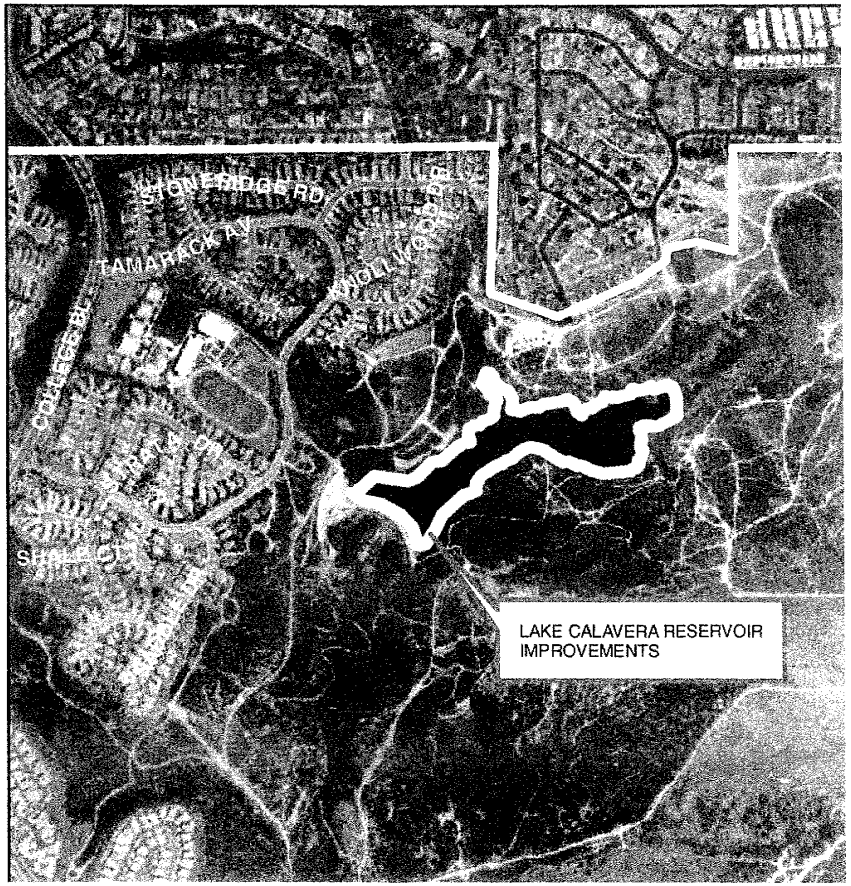
CAPITAL PROJECT DESCRIPTION

3821
PROJECT NO.

WATER DISTRIBUTION SYSTEM - LAKE CALAVERA RESERVOIR IMPROVEMENTS

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Lake Calavera in the northeast quadrant of the City.

PROJECT DESCRIPTION:

Replace the outlet tower valves and piping to restore function and repair the existing spillway and channel to improve flow, safety, and access. Implementation of the mitigation measures and the monitoring activities associated with these measures.

PROJECT NEED:

The existing valves located within the outlet tower have recently been replaced allowing Calavera Dam to function as a flood control retention facility to help alleviate potential downstream flooding in the area of the Rancho Carlsbad Mobile Home Park.

FINANCING:

Purpose	Estimated Cost	Funding Source
Study and Reports	$ 21,330	Water Replacement
Environmental	$ 593,450	Water Replacement
Design	$ 584,200	Water Replacement
Construction	$5,197,930	Water Replacement
Total Cost =	**$6,396,910**	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - LIMITED ACCESS PIPELINE RELOCATION PROGRAM

PROJECT NAME

5035
PROJECT NO.

PROJECT LOCATION MAP:

PROJECT LOCATION:

Various locations within CWWD'S Service are.

PROJECT DESCRIPTION:

Remove pipelines within old easements or on private property. This project will start with the ten highest priority locations.

PROJECT NEED:

There are several locations where pipelines have been constructed adjacent to buildings within or easements or on private property. These buildings would be at risk if there would be a pipeline break. This project would terminate the public pipeline at the edge of street right of way and install new water services as required to provide service to existing customers.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$ 180,000	Water Replacement
Construction	$1,760,000	Water Replacement
Total Cost =	**$1,940,000**	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – MAERKLE FACILITY IMPROVEMENTS

PROJECT NAME

5009

PROJECT NO.

PROJECT LOCATION MAP:

PROJECT LOCATION:

At Maerkle Reservoir.

PROJECT DESCRIPTION:

Replace various items at the Maerkle Reservoir site. The following items remain to be completed: security lighting, security cameras, joint sealant replacement in the 10 MG tank and replacing flow meters.

PROJECT NEED:

A May 2007 study evaluated the Maerkle Reservoir site facilities and identified 26 priority items for replacement to comply with code or improve reliability. All but four items have been completed.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$260,000	Water Replacement
Construction	$1,875,200	Water Replacement
Total Cost =	**$2,135,200**	

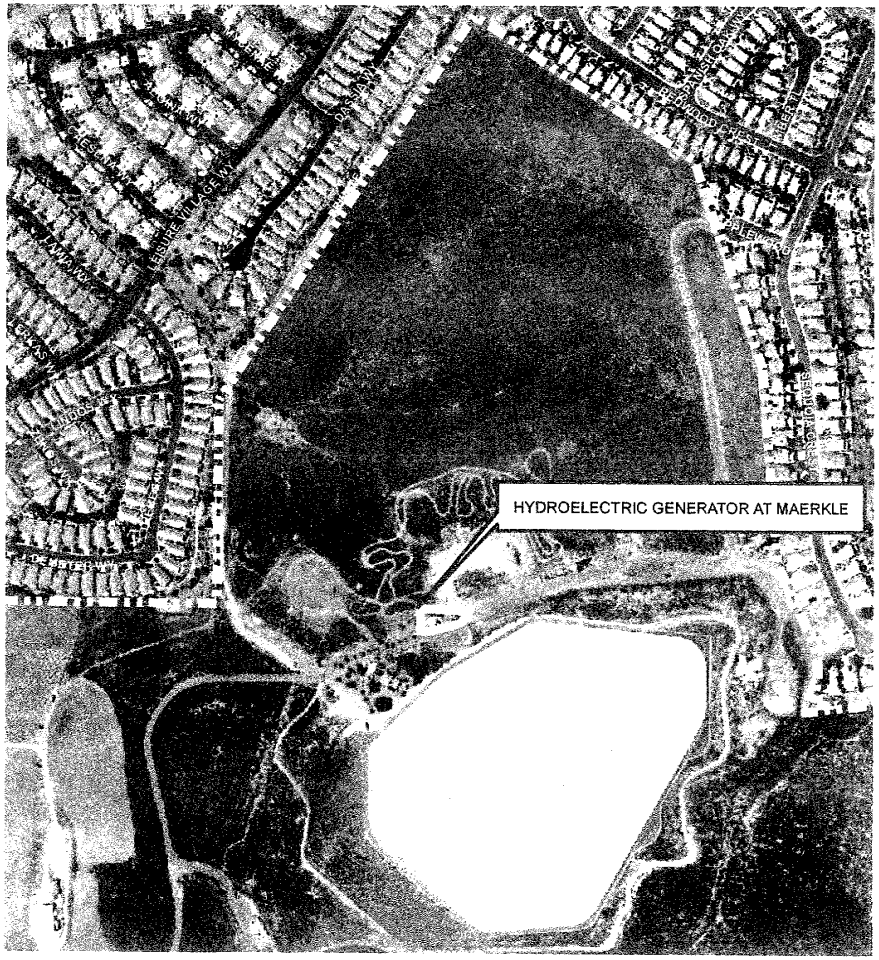
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – MAERKLE PUMP STATION IMPROVEMENTS

PROJECT NAME

5004
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Maerkle Reservoir.

PROJECT DESCRIPTION:

Increase pumping capacity from 13,500 gpm to 15,173 gpm.

PROJECT NEED:

Required for emergency supply from Maerkle Reservoir and supply average demand in the 490 pressure zone.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$100,000	Water Connection
Environmental	$50,000	Water Connection
Construction	$1,805,200	Water Connection
Total Cost =	**$1,955,200**	

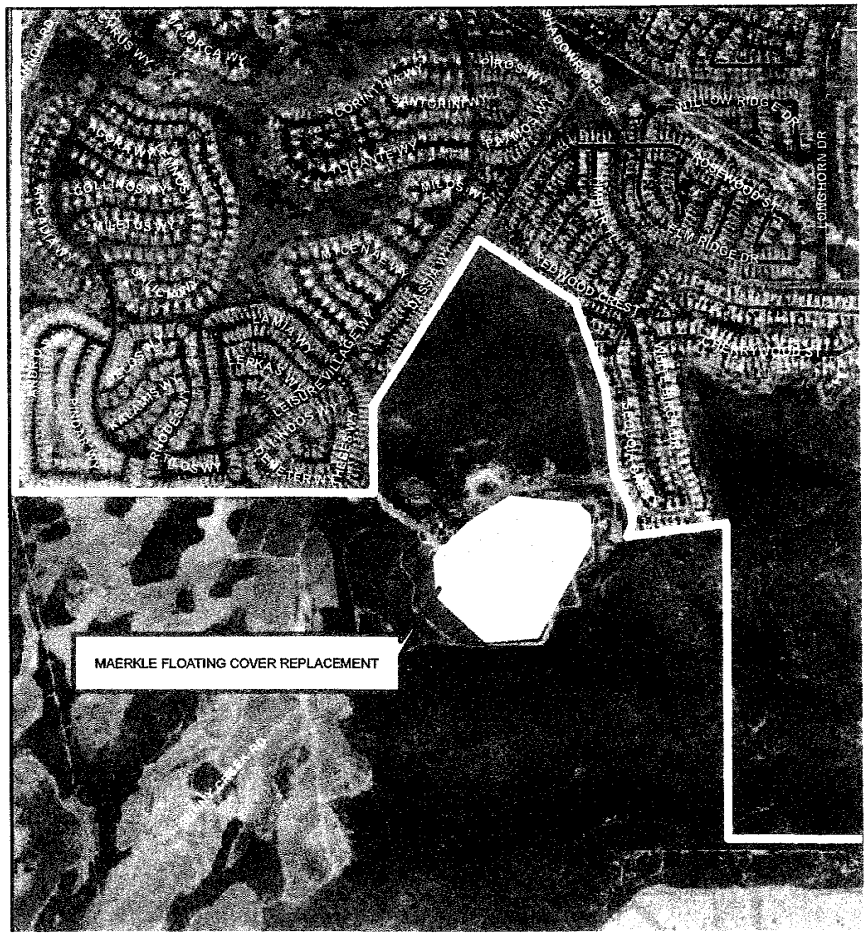
CAPITAL PROJECT DESCRIPTION

5036
PROJECT NO.

WATER DISTRIBUTION SYSTEM - MAERKLE RESERVOIR FLOATING COVER REPLACEMENT

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Maerkle Reservoir

PROJECT DESCRIPTION:

Project will first explore options for replacing the existing cover including the feasibility of adding photo voltaic power generation on the 16 acrs reservoir cover.

PROJECT NEED:

The existing cover was installed in 1996 and is approaching the end of it's 20 year warranty and useful life.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$130,000	Water Replacement
Design	$650,000	Water Replacement
Construction	$9,220,000	Water Replacement
Total Cost =	**$10,000,000**	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - MAERKLE RESERVOIR TRANSMISSION MAIN

5001
PROJECT NO.

PROJECT NAME

PROJECT LOCATION MAP:

PROJECT LOCATION:

From Maerkle Reservoir west to the future extension of College Boulevard.

PROJECT DESCRIPTION:

Install 9,300 feet of 36 inch diameter waterline.

PROJECT NEED:

Increase supply to meet buildout and provide redundant supply pipeline. Supply water to new 490 Zone development.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$225,000	Water Replacement
Environmental	$250,000	Water Replacement
Design	$655,000	Water Replacement
Property Acquisition	$20,000	Water Replacement
Construction	$5,180,000	Water Replacement
Total Cost =	**$6,330,000**	

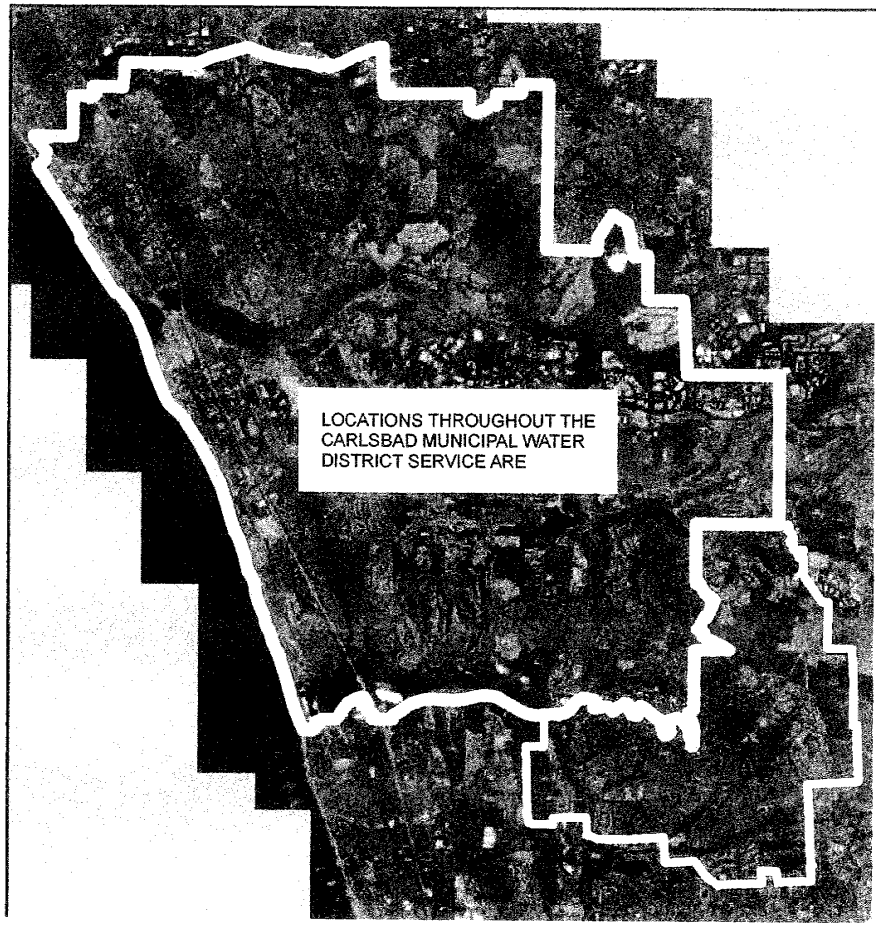
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - MISCELLANEOUS PIPELINE REPLACEMENTS

PROJECT NAME

3904
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Various locations throughout the Carlsbad Municipal Water District service area.

PROJECT DESCRIPTION:

Replace existing small diameter and older pipelines at multiple locations.

PROJECT NEED:

Provide increased water supply to meet fire flow requirements. Many pipes in the downtown area are cast iron pipes that have reached the end of their useful life.

FINANCING:

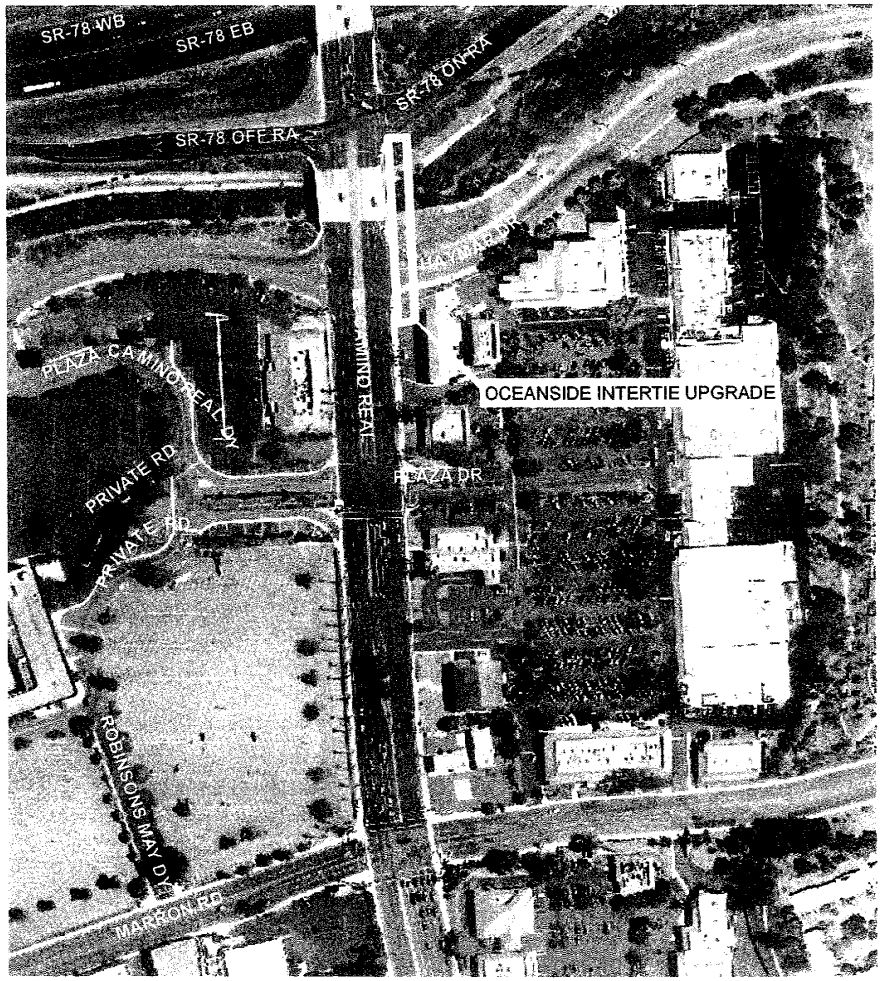
Purpose	Estimated Cost	Funding Source
Design	$150,000	Water Replacement
Construction	$1,283,000	Water Replacement
Total Cost =	**$1,433,000**	

CAPITAL PROJECT DESCRIPTION

3531
PROJECT NO.

WATER DISTRIBUTION SYSTEM - OCEANSIDE INTERTIE UPGRADE
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

El Camino Real near State Highway 78.

PROJECT DESCRIPTION:

Replace the pipes, valves and water meter associated with the intertie facility.

PROJECT NEED:

During emergencies and periods of water supply curtailment, the Oceanside intertie provides backup. This project is needed to increase the reliability of CMWD's water system.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design/Construction	$115,000	Water Replacement
Total Cost =	**$115,000**	

CAPITAL PROJECT DESCRIPTION

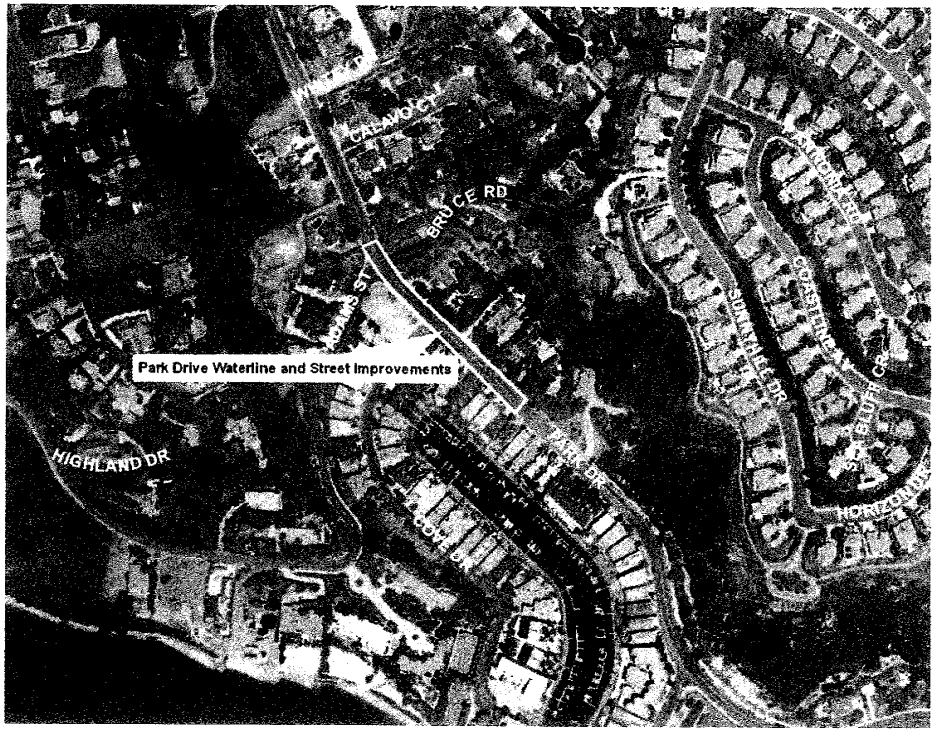
WATER DISTRIBUTION SYSTEM – PARK DRIVE WATERLINE AND STREET IMPROVEMENTS

PROJECT NAME

5030

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

Park Drive from Adams Street to approximately 200 feet south of Cove Drive.

PROJECT DESCRIPTION:

Replacement of failed water line and roadway repair associated with damage caused by the failure.

PROJECT NEED:

The water pipeline ruptured and a temporary pipeline has been installed. The roadway has been temporarily repaired and requires reconstruction and stabilization.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies	$20,000	Water Replacement
Environmental	$110,000	Water Replacement
Design	$240,750	Water Replacement
Construction	$721,250	Water Replacement
Total Cost =	**$1,092,000**	

CAPITAL PROJECT DESCRIPTION

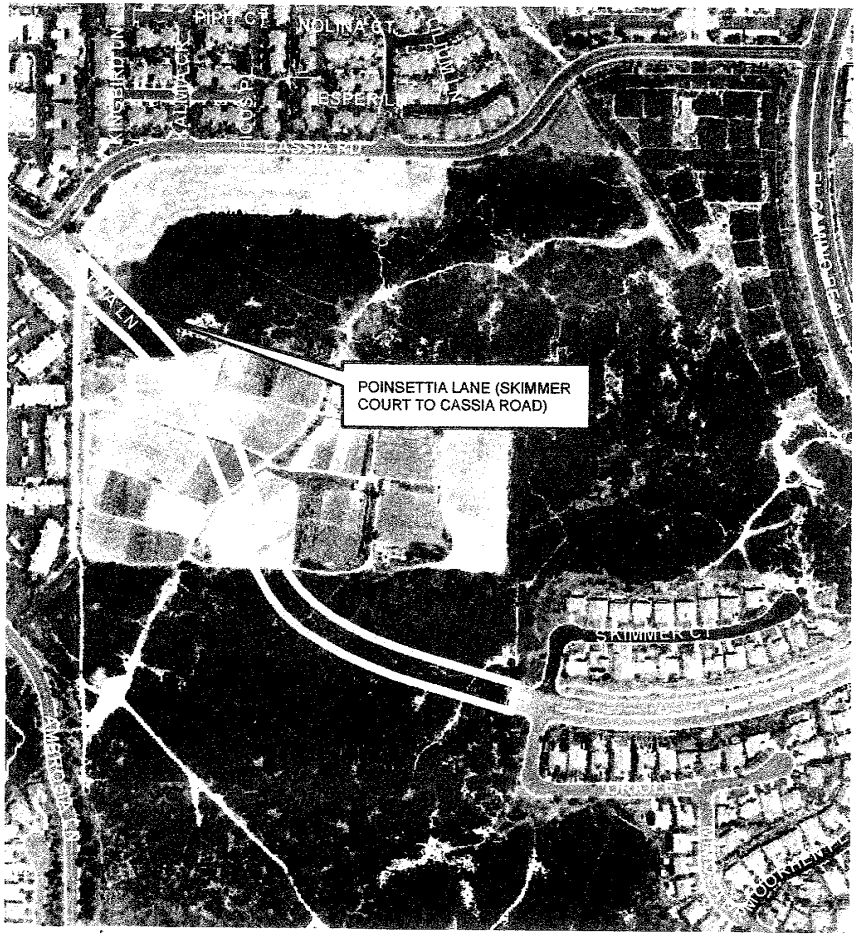
WATER DISTRIBUTION SYSTEM - POINSETTIA LANE (SKIMMER COURT TO CASSIA ROAD)

PROJECT NAME

NONE

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

In Poinsettia Lane between Skimmer Court and Cassia Road.

PROJECT DESCRIPTION:

Construct 2,700 feet of 12 inch diameter water main.

PROJECT NEED:

Completes 375 Zone loop on Poinsettia Lane. Increase capacity to/from the D3 Reservoir located and the intersection of Poinsettia Lane and Black Rail Road.

FINANCING:

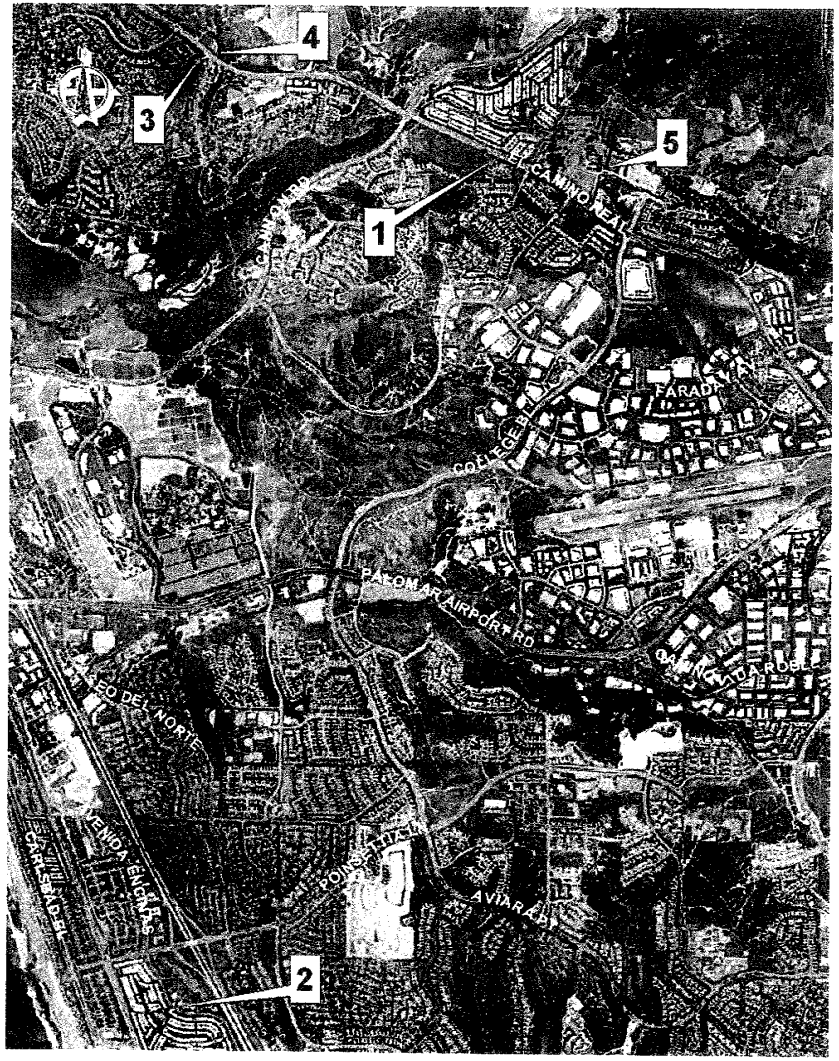
Purpose	Estimated Cost	Funding Source
Construction	$763,800	Water Connection
Total Cost =	**$763,800**	

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – PRESSURE REDUCING STATIONS REHABILITATION / REPLACEMENT
PROJECT NAME

5020
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

#	Name	Location
1	Terramar	El Camino Real north of Jackspar Drive
2	Lake Shore Gardens	Poinsettia Lane and Avenida Encinas
3	Laguna Riviera	Kelly Drive
4	Kelly	Kelly Drive and El Camino Real
5	Sycamore Creek	Sunny Creek Road

PROJECT DESCRIPTION:

Assess the condition and replacement or upgrade needs of the existing water pressure reducing stations identified above.

PROJECT NEED:

Rehabilitation or replacement of the various pressure reducing stations will continue to provide safe and reliable water service to the areas they serve.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$52,000	Water Replacement
Construction	$1,050,000	Water Replacement
Total Cost =	**$1,102,000**	

PRESSURE

CAPITAL PROJECT DESCRIPTION

NONE
PROJECT NO.

WATER DISTRIBUTION SYSTEM - RANCHO CARLSBAD GROUNDWATER SUPPLY
PROJECT NAME

PROJECT LOCATION MAP:

PROJECT LOCATION:

Within the Rancho Carlsbad Mobile Home and Golf Course Property.

PROJECT DESCRIPTION:

Project will study the feasibility of new groundwater water wells and pipeline to deliver groundwater to CMWD from the Rancho Carlsbad Groundwater basin. New facility to produce treat and deliver groundwater to CMWD.

PROJECT NEED:

CMWD could use the local groundwater as part of its mix of alternative water supply that is currently not being utilized. Project is recommended in the 2010 Urban Water Management Plan and the 2012 Water Master Plan.

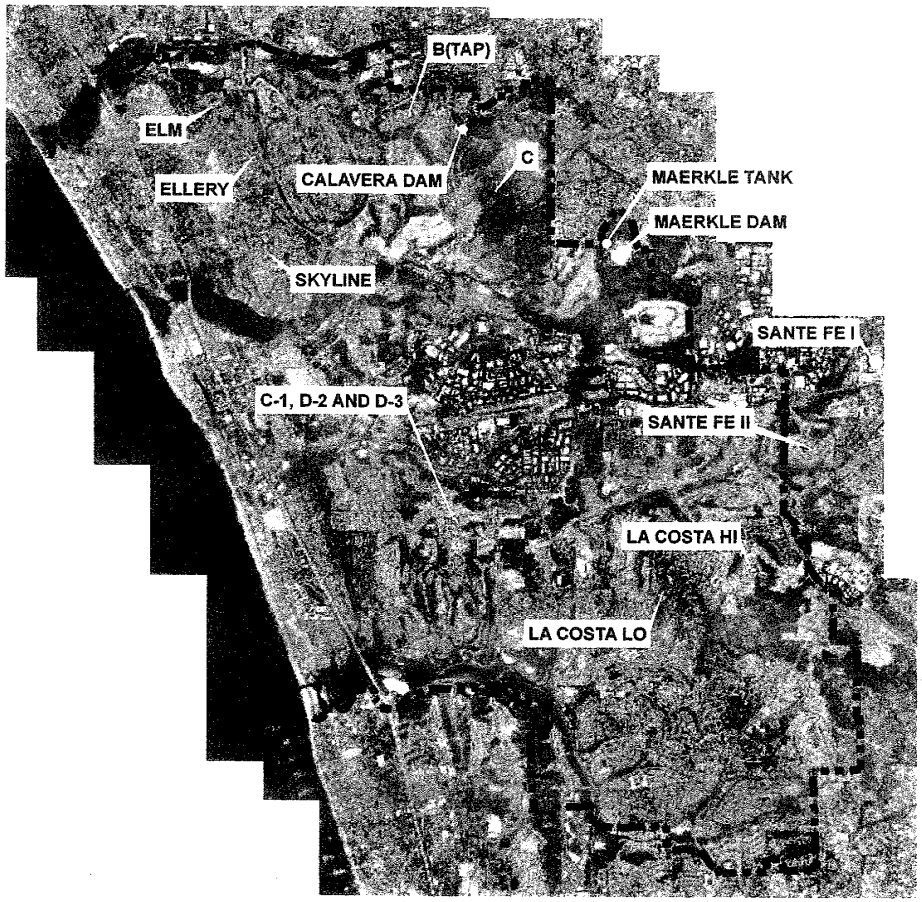
FINANCING:

Purpose	Estimated Cost	Funding Source
Studies	$ 270,000	Water Repl./Water Conn.
Environmental	$ 380,000	Water Repl./Water Conn.
Construction	$ 2,880,000	Water Repl./Water Conn.
Total Cost =	**$ 3,500,000**	**Water Repl./Water Conn.**

CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – RESERVOIRS AND TANKS REPAIR/MAINTENANCE PROGRAM 5024
PROJECT NAME PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

#	Type	Name
1	Steel	C
2	Earthen	Calavera Dam
3	Steel	D-1
4	Steel	D-2
5	Steel	D-3
6	Steel	Elm
7	Steel	Ellery
8	Concrete	La Costa High
9	Steel	La Costa Low
10	Earthen	Maerkle Dam
11	Concrete	Maerkle Tank
12	Steel	Skyline
13	Concrete	Santa Fe I
14	Concrete	Santa Fe II
15	Concrete	B (TAP)

PROJECT DESCRIPTION:
Prepare report and implement recommendations establishing priorities for a comprehensive reservoir repair and maintenance program.

PROJECT NEED:
Replacement of tank coatings, valves, screens structural supports, security fencing, ladders and water level equipment are required to meet State Health and CalOSHA requirement to provide safe and reliable water service to the areas they serve.

FINANCING:

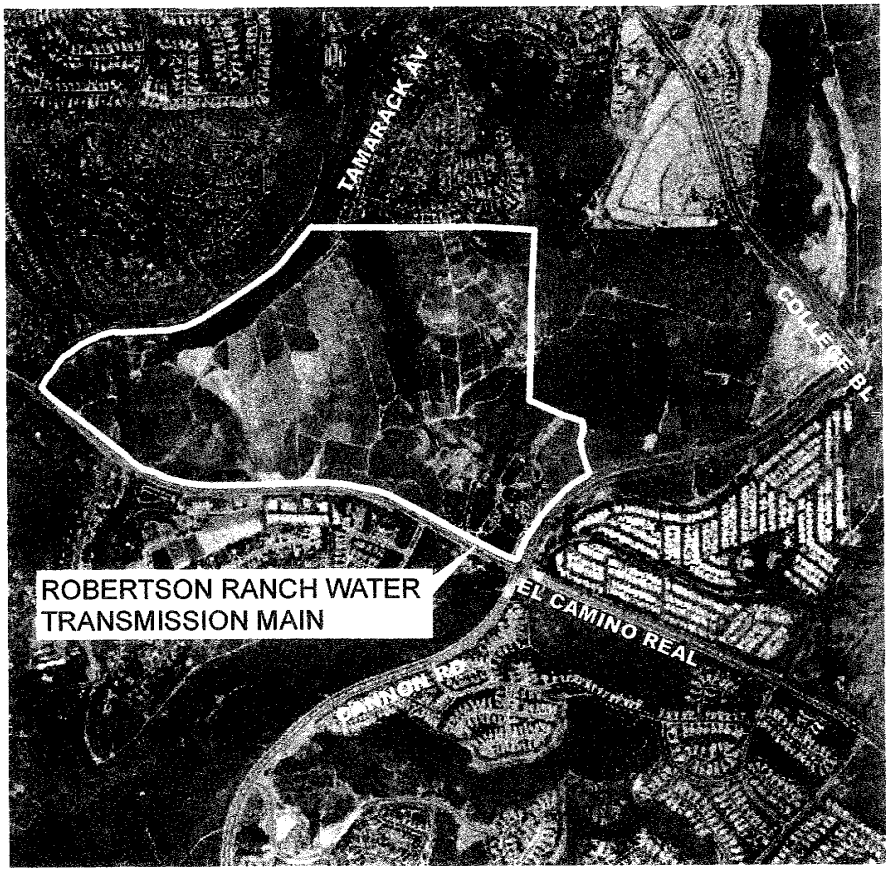
Purpose	Estimated Cost	Funding Source
Study	$ 100,000	Water Replacement
Design	$ 150,000	Water Replacement
Construction	$ 5,750,000	Water Replacement
Total Cost =	**$6,000,000**	

CAPITAL PROJECT DESCRIPTION

5037
PROJECT NO.

WATER DISTRIBUTION SYSTEM - ROBERTSON RANCH WATER TRANSMISSION MAIN
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Within the proposed streets of Robertson Ranch Development.

PROJECT DESCRIPTION:

Install 4,700 linear feet of new 16 inch diameter water pipeline.

PROJECT NEED:

Project schedule is subject to Robertson Ranch road improvements. Project will be partially funded by the developer, CMWD to pay for upsizing from a 12-inch to 16-inch pipeline to serve the water needs of the surrounding area.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design	$ 100,000	Water Replacement
Construction	$1,100,000	Water Replacement
Total Cost =	**$1,200,000**	

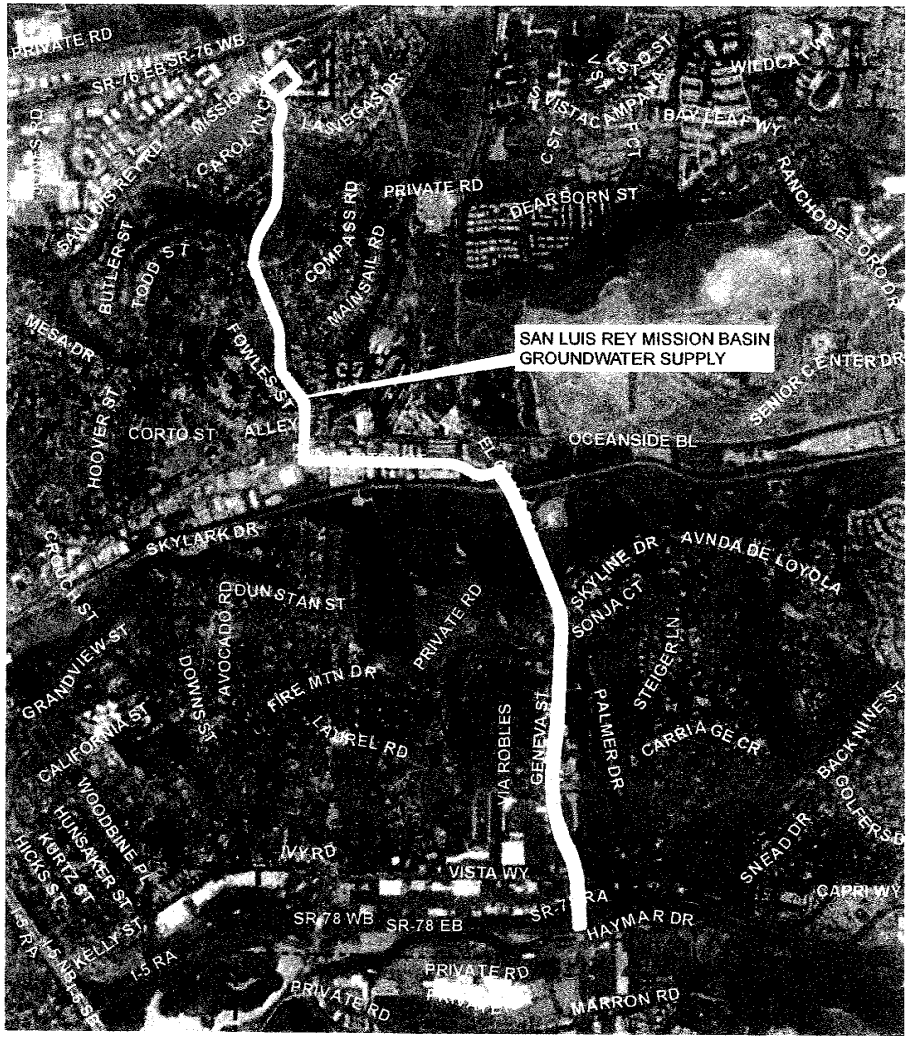
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM - SAN LUIS REY MISSION BASIN GROUNDWATER SUPPLY

PROJECT NAME

5213/5214
PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

San Luis Rey Mission Basin is located in the Northeasterly area of the city of Oceanside.

PROJECT DESCRIPTION:

New facilities to produce, treat and deliver groundwater to CMWD from the San Luis Rey Mission Groundwater Basin.

PROJECT NEED:

CMDW currently has groundwater rights in the basin that are currently not being utilized. Project is recommended in the 2010 Urban Water Management Plan and the 2012 Water Master Plan.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies	$ 55,000	Water Repl./Water Conn.
Construction	$ 17,000,000	Water Repl./Water Conn.
Total Cost =	**$ 17,055,000**	**Water Repl./Water Conn.**

CAPITAL PROJECT DESCRIPTION

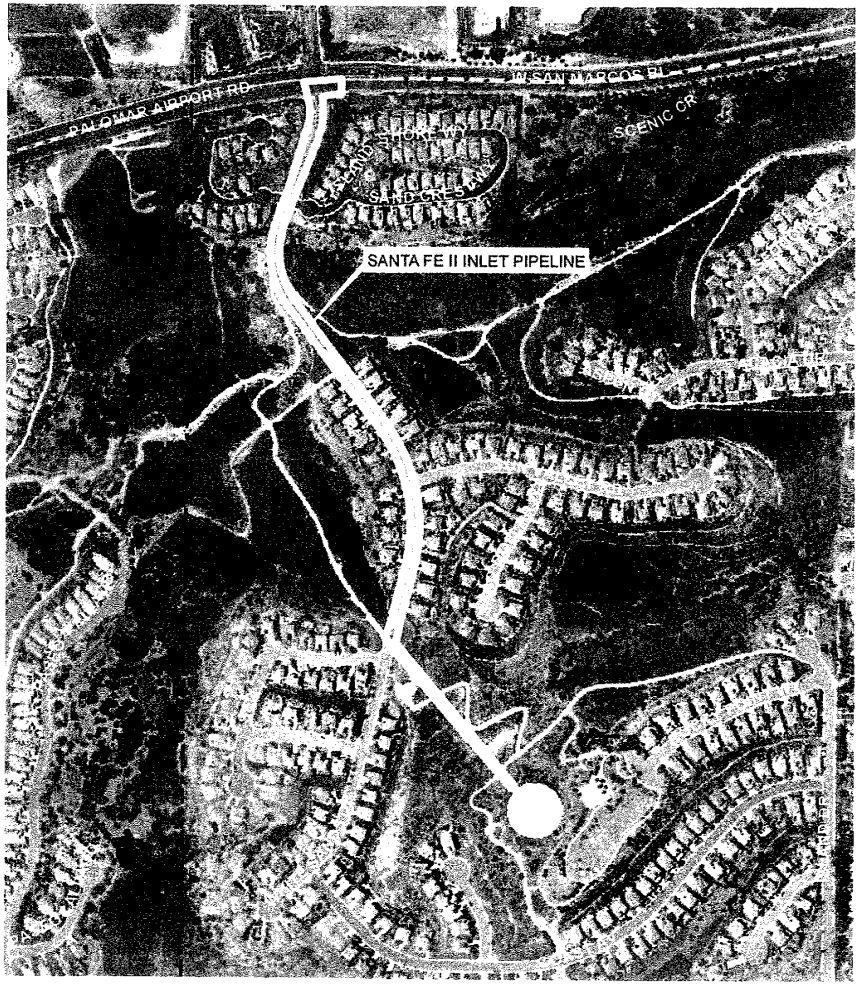
WATER DISTRIBUTION SYSTEM - SANTA FE II INLET PIPELINE

PROJECT NAME

NONE

PROJECT NO.

PROJECT LOCATION MAP:



PROJECT LOCATION:

From San Marcos Blvd south along White Sands then a portion of the alignment crosses open space to Tank Site.

PROJECT DESCRIPTION:

Install 3,300 lineal feet of new 30-inch pipe.

PROJECT NEED:

The Santa Fe Reservoir is located along a major supply transmission main from SDCWA Aqueduct. Since the reservoir utilizes a long common Inlet/Outlet pipeline there are times when there is no turnover of water within the reservoir. The construction of a parallel pipeline for inlet to the reservoir and utilizing the existing pipeline for outlet pipe would maintain water quality without decreasing water storage. This project is recommended in the 2012 Water Master Plan.

FINANCING:

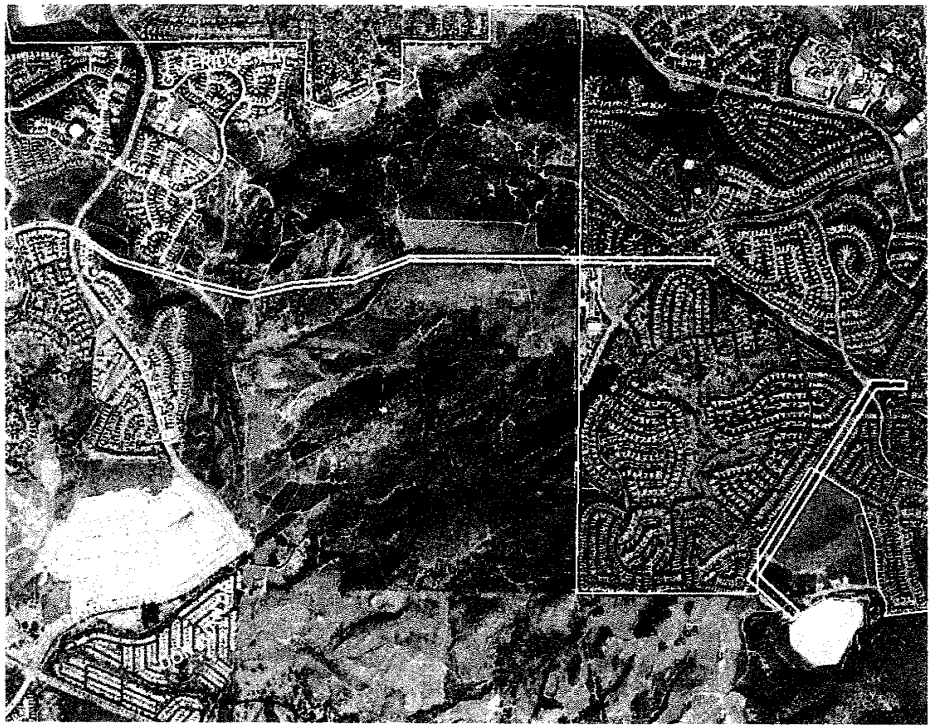
Purpose	Estimated Cost	Funding Source
Environmental	$ 30,000	Water Repl.
Design	$ 440,000	Water Repl.
Construction	$ 2,368,000	Water Repl.
Total Cost =	**$ 2,838,000**	**Water Repl.**

CAPITAL PROJECT DESCRIPTION

5008
PROJECT NO.

WATER DISTRIBUTION SYSTEM – TRI-AGENCY WATER TRANSMISSION PIPELINES
PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

Between the San Diego County Water Authority's Aqueduct to Calavera Pump Station and to Maerkle Reservoir.

PROJECT DESCRIPTION:

Replace or rehabilitate two water transmission pipelines: Reach 1 is from Aqueduct Connection No. 3 to the Maerkle Reservoir, and Reach 2 is from Leisure Glen to the Calavera Pump Station along College Blvd.

PROJECT NEED:

In previous years, CMWD has experienced five pipeline breaks on these transmission mains. A preliminary assessment has been completed recommending repair or replacing the existing water main.

FINANCING:

Purpose	Estimated Cost	Funding Source
Environmental	$150,000	Water Replacement
Design	$605,000	Water Replacement
Construction	$5,700,000	Water Replacement
Total Cost =	**$6,455,000**	

CAPITAL PROJECT DESCRIPTION

5016
PROJECT NO.

WATER DISTRIBUTION SYSTEM – WATER MASTER PLAN UPDATE

PROJECT NAME

PROJECT LOCATION MAP:

THROUGHOUT THE DISTRICT

PROJECT LOCATION:

Throughout the Carlsbad Municipal Water District (CMWD) service area.

PROJECT DESCRIPTION:

Update the CMWD's 2003 Water Master Plan based on improvements added since 2003 and anticipated growth projections. Update the water model with the facilities added since 2003 and verify calibration. Obtain CEQA approval through an amendment to the EIR.

PROJECT NEED:

The last water master plan was based on 1990's data. Changes is growth projections, imported water supply, water quality requirements and recycled water expansions are impacting the CMWD. The update will identify changes to planned facilities, incorporate desalinated water and recycled water program impacts address water quality, renewable power requirements and update connection fees.

FINANCING:

Purpose	Estimated Cost	Funding Source
Studies & Reports	$550,000	Water Connection
Environmental	$150,000	Water Connection
Total Cost =	**$700,000**	

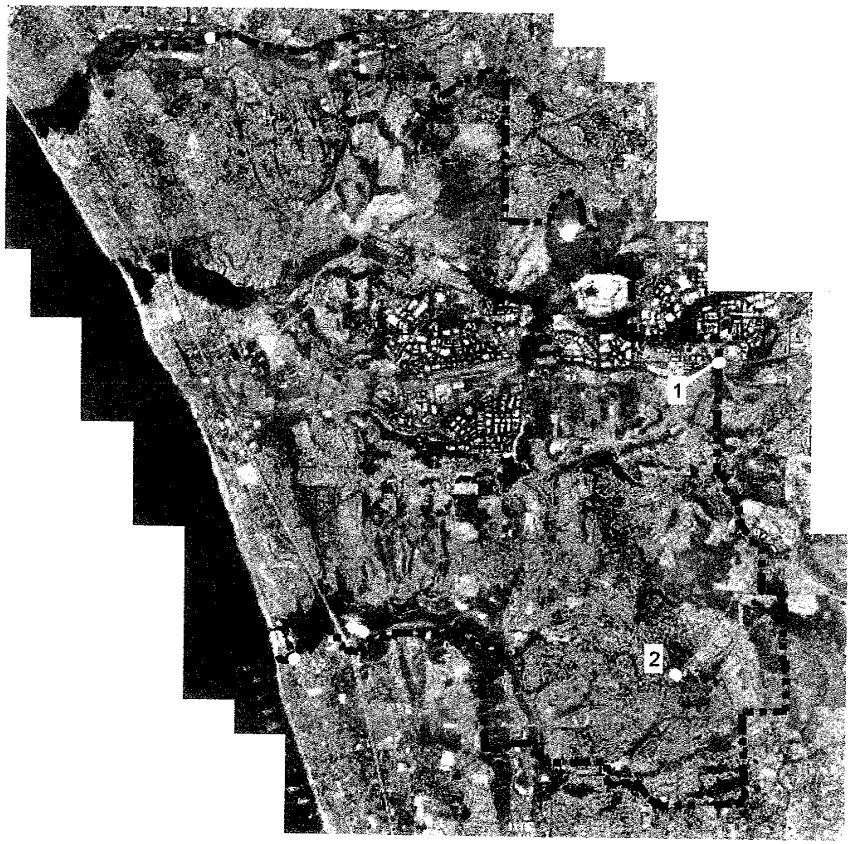
CAPITAL PROJECT DESCRIPTION

WATER DISTRIBUTION SYSTEM – WATER SYSTEM INTERTIE CONNECTION

3664
PROJECT NO.

PROJECT NAME

PROJECT LOCATION MAP:



PROJECT LOCATION:

#	Adjacent Agency	Location
1	Vista Irrigation District	PAR and Business Park Drive
2	Olivenhain Municipal Water District	La Costa Ave. and Rancho Santa Fe Rd.

PROJECT DESCRIPTION:

Construct pipeline system interties with adjacent water agencies including Vista Irrigation District and Olivenhain Municipal Water District.

PROJECT NEED:

During emergencies, these interties could supply water to the City and also provide water back to the adjacent agencies.

FINANCING:

Purpose	Estimated Cost	Funding Source
Design/Construction	$405,000	Water Replacement
Total Cost =	**$405,000**	

CAPITAL PROJECT DESCRIPTION

5019
PROJECT NO.

WATER DISTRIBUTION SYSTEM
WATER VALVE REPAIR / REPLACEMENT PROGRAM
PROJECT NAME

PROJECT LOCATION MAP:

VARIOUS LOCATIONS THROUGHOUT THE DISTRICT

PROJECT LOCATION:

Various locations throughout the Carlsbad Municipal Water District service area.

PROJECT DESCRIPTION:

Ongoing program to repair/replace broken or malfunctioning water valves.

PROJECT NEED:

The repair/replacement of inoperable valves is an integral component of a well-managed valve maintenance program reducing water loss and supports achieving the performance measurement of potable water distribution system integrity. There is a current backlog of broken valves needing repair/replacement.

FINANCING:

Purpose	Estimated Cost	Funding Source
Construction	$1,950,000	Water Replacement
Total Cost =	**$1,950,000**	